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# CONDUCT OF MONETARY POLICY

(Pursuant to the Full Employment and Balanced Growth  
Act of 1978, P.L. 95-523)

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BEFORE THE

COMMITTEE ON

BANKING, FINANCE AND URBAN AFFAIRS

HOUSE OF REPRESENTATIVES

NINETY-SIXTH CONGRESS

SECOND SESSION

FEBRUARY 19, 1980

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Committee on Banking, Finance and Urban Affairs



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(II)





## CONDUCT OF MONETARY POLICY

(Pursuant to the Full Employment and Balanced Growth  
Act of 1978, Public Law 95-523)

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TUESDAY, FEBRUARY 19, 1980

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON BANKING, FINANCE AND URBAN AFFAIRS,  
*Washington, D.C.*

The committee met at 10:05 a.m. in room 2128 of the Rayburn House Office Building; Hon. Henry S. Reuss, chairman of the committee, presiding.

Present: Representatives Reuss, Ashley, St Germain, Minish, Annunzio, Mitchell, Fauntroy, Neal, Blanchard, LaFalce, Spellman, AuCoin, Evans (Indiana), Lundine, Cavanaugh, Vento, Watkins, Stanton, Wylie, Hansen, Hyde, Leach, Evans (Delaware), Green, Paul, Bethune, Shumway, Ritter, and Porter.

The CHAIRMAN. The committee will be in order for its statutory hearing on the conduct of monetary policy.

Chairman Volcker, welcome to your first appearance before this committee in its semiannual monetary policy review.

Last year, following our first hearings, under the procedures established in Humphrey-Hawkins, we issued a report on March 12, 1979, agreed to by all except one of our members.

The key recommendation of that report was "anti-inflationary policies must not cause a recession."

So far, the Federal Reserve's policies have not caused a recession and for that, you deserve our appreciation.

A year ago, the committee also gave its approval to the rates of growth of the monetary aggregates projected for 1979 by the Fed with the proviso that the low target rate of growth of  $M_1$ ,  $1\frac{1}{2}$  to 4 percent, should be revised if ATS and NOW accounts failed to absorb as much of the demand for checkable accounts as expected.

This was done and, in the end,  $M_1$  grew at an annual rate of  $5\frac{1}{2}$  percent, just under the adjusted ceiling of 6 percent.

This, too, is about right, given that the rate of inflation is much higher than had been projected. Our report on March 12, 1979, finally recommended that the Federal Reserve focus on keeping to the money supply targets and avoid pegging the Federal funds rate, as that method of conducting monetary policy had worsened cyclical fluctuations in the economy in the past.

On October 6, you brought Federal Reserve policy into line with that recommendation. Since then, you have guided monetary policy on a restrained but not convulsive course.

The growth of money and credit has slowed, but without the abrupt and severe cutoff of loanable funds that has characterized previous periods of monetary caution.

The dollar is relatively quiescent. Interest rates have remained relatively stable, though high, for months. Though I believe that the Federal Reserve's program of restraint could well coexist with lower commercial lending interest rates, I find little fault with your record.

For 1980, dangers remain. First and foremost, inflation is simply out of control. There are some signs of a weakening economy. Caution is needed. Excessive restraint will have its primary effect on employment and output and only a slight temporary effect on our entrenched inflation.

The Federal Reserve cannot cure inflation with monetary shock treatment and it shouldn't try.

Inflation can be stopped only by a program of structural reform fortified by mandatory energy conservation and an effective incomes policy, none of which now exists. Only then can sensible, restrained monetary and fiscal policies do their job.

Moderate restraint in the expansion of the money supply is thus a necessary but not a sufficient ingredient in any serious anti-inflationary policy.

Mr. Stanton, did you have any opening remarks?

MR. STANTON. No, Mr. Chairman. I am anxious to hear our witness as you are. I do extend a warm personal welcome to Chairman Volcker and look forward to his testimony.

And that is all, Mr. Chairman.

The CHAIRMAN. Thank you.

Your full statement, which I find in very good compliance with the legislative mandate of February 19—that is today—1980, will, without objection, be placed in the record in full. Would you now proceed Mr. Volcker?

#### **STATEMENT OF HON. PAUL A. VOLCKER, CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM**

MR. VOLCKER. I have a somewhat more personal statement here which amplifies and adds some points beyond that formal report, and I am glad it will be put directly in the record, too.

The CHAIRMAN. Without objection, it, too, with its two tables, will be placed in the record following your oral presentation.

MR. VOLCKER. If I could, perhaps, just read my statement, I think that might serve as an introduction to these hearings.

I do appreciate this opportunity which, as you point out, is my first to present this semiannual report on monetary policy.

The first point I would want to emphasize to the committee is that the near-term outlook for real economic activity and employment remains highly uncertain. It has never been easy to forecast the direction of aggregate activity around cyclical turning points, and, as one prediction of imminent recession after another has gone awry, the past year has been a particularly humbling experience for economic forecasters.

Important uncertainties continue to cloud the outlook for 1980. Certainly, one of the most critical questions is whether consumers, faced with lower real incomes and expecting higher prices, will continue to spend an extraordinarily high proportion of their income

despite heavy debt burdens and reduced liquidity. Purchasing power is again being absorbed by sharply higher oil prices and there is no assurance that that process will quickly come to an end. The President has, of course, submitted his budget for fiscal 1981. But international political developments have raised some new questions about prospects for defense spending in the years ahead, and there are uncertainties about other elements in the budget as it makes its way through the Congress.

In looking ahead and making judgments about these and other questions, most members of the Federal Reserve Board have shared the view of the administration and most other economists that an economic downturn will probably develop sometime this year. However, I would point out that such a result is by no means inevitable, and many forecasters currently appear to be raising their sights.

Unfortunately, the range of uncertainty with respect to inflation is one of how much prices will rise, not whether. Price increases, at least as recorded in the most widely read indexes, could well accelerate in the first quarter, partly because the latest round of oil price increases will be reflected in those numbers. The real question is how much progress can be made in reducing the inflation rate in the latter part of the year.

In the past, at critical junctures for economic stabilization policy, we have usually been more preoccupied with the possibility of near-term weakness in economic activity or other objectives than with the implications of our actions for future inflation. To some degree, that has been true even during the long period of expansion since 1975. As a consequence, fiscal and monetary policies alike too often have been prematurely or excessively stimulative or insufficiently restrictive. The result has been our now chronic inflationary problem with a growing conviction on the part of many that this process is likely to continue. Anticipations of higher prices themselves help speed the inflationary process.

Nor can we demonstrate that the result has been beneficial in terms of other objectives. To the contrary, unemployment has been higher in the 1970's than in earlier decades. Productivity growth has declined. Capital spending has not kept up with the needs of a growing labor force. Financial markets have been disturbed and depressed and institutions responsible for a substantial share of mortgage financing are coming under strain.

The recurrent weakness of the foreign exchange value of the dollar has undercut our economic stability at home and our leadership abroad.

The broad objective of policy must be to break that ominous pattern. That is why dealing with inflation has properly been elevated to a position of high national priority. Success will require that policy be consistently and persistently oriented to that end. Vacillation and procrastination, out of fears of recession or otherwise, would run grave risks. Amid the present uncertainties, stimulative policies could well be misdirected in the short run. More importantly, far from assuring more growth over time, by aggravating the inflationary process and psychology, they would threaten more instability and unemployment.

The implications for monetary policy are clear. While there may be legitimate debate about the impacts of monetary policy in the short run, there is little doubt that inflation cannot persist in the long run unless it is accommodated by excessive expansion of money and credit.



Put more affirmatively, restraint on growth and money and credit maintained over a considerable period of time must be an essential part of any program to deal with entrenched inflation and inflationary expectations. Accordingly, I see no alternative to a progressive slowing of the growth of the monetary aggregates to lay the base for restored stability and growth.

The 1980 growth ranges, as established by the Federal Open Market Committee for the key monetary aggregates, are in line with that basic continuing objective.

In the short run, we believe those targets are fully consistent with an orderly process of economic adjustment and modest growth, provided the inflation rate subsides as the year wears on. We also believe that should inflationary pressures begin to build more strongly in the context of strengthening demand, those same targets would imply strong financial restraint. In fact, the restraint implied by the new targets would be inconsistent with higher rates of inflation over a significant period of time.

Precise growth ranges are described in the report that has been distributed to you and can be seen in the perspective of recent years in an attachment to this statement. I should emphasize that all these data are on the basis of revised definitions for the monetary aggregates described in detail in appendix A of the report. These definitions incorporate some of the recently developed financial instruments that increasingly have been used in place of more conventional means of payments or claims on well-established institutions. As these new forms of "money" or "near-money" generally have been expanding rapidly in recent years, the redefined aggregates tend to have somewhat faster growth rates over the past few years than the comparable aggregates as previously defined.

The FOMC's new growth ranges for 1980 should not be directly compared with results based on the former definitions of the aggregates. What is significant is that the ranges for the newly defined aggregates in 1980 are expected to result in further slowing of monetary growth this year, following some deceleration over the course of 1979.

As I implied earlier, the behavior of interest rates and the degree of pressure on financial markets in the year ahead will depend critically on the performance of the economy and the strength of inflationary pressures and expectations. Experience suggests that if real activity in fact weakens, interest rates—particularly short-term rates—could tend to decline as demands for money and credit moderate. As inflationary forces tend to recede, the decline could be more pronounced and spread more fully into longer term markets. In those particular circumstances, such market developments would be constructive, tempering any weakness in real activity, and tending to support investment activity in housing. At the same time, persistent restraint on monetary growth would be consistent with our resolve to resist inflation. The other side of the coin is that continued strong inflationary forces, accompanied by bulging credit demands, would tend to keep financial markets under strong pressure—and that pressure should confine and dissipate those inflationary forces.

In either case, movements of short-term market interest rates—such as the Federal funds rate—should not necessarily be taken as harbingers of a fundamental change in the stance of monetary policy;

that policy will, in any event, continue to be directed toward reining in excessive monetary growth.

Let there be no doubt, the Federal Reserve is determined to make every reasonable effort to work toward reducing monetary growth from the levels of recent years, not just in 1980, but in the years ahead.

The policy actions taken on October 6 of last year, which entailed changes in our operating techniques to provide better assurance of containing the growth in the money supply, were one demonstration of that commitment. And I can report that developments since that time with respect to monetary and credit growth have been remarkably consistent with our immediate objectives.

We cannot conclude from those results that our procedures insure that money growth will always remain tightly on a narrow path over short periods of time, or that that is necessarily wholly desirable. From week to week or month to month, the relationship between bankers and the money stock is influenced by unpredictable shifts between different types of deposits and among institutions. There are transitory shifts in demands for money associated, for example, with tax refunds, strikes, or the weather. Nonetheless, our new procedure should continue to give us better control over the monetary aggregate and we are studying what, if any, other aspects of our institutional arrangements might be changed to enhance the efficacy of those procedures.

The increase in the discount rate announced on Friday is another reflection of our commitment to keep credit expansion under control. The most recent data for overall economic activity have, as you know, been relatively strong. The inflation rate is currently responding to the new oil price increases. Stimulated in large part by international developments, indications are that inflationary anticipations have tended to rise once again, and in combination, these developments appear to be generating somewhat greater demands for money and credit. In the judgment of the Board, these developments underscore the need to take such measures as may be required to maintain firm control over the growth of money and credit.

Sustained monetary restraint is not an easy, automatic, and painless solvent for our economic difficulties—the only claim I will make is that it is essential. It works, in part, by limiting the potential growth in nominal economic activities; that is, growth measured in current, inflated dollars. If other policies are working at cross-purposes, the restraint could be blunt, uneven, and decidedly uncomfortable, with too much of the impact in the short run falling on employment and income rather than on prices.

Our aim must be otherwise. What all of us would like to achieve is as rapid a transition as we can manage to a more stable and productive economy—an economy in which we can have more real growth and less unemployment because inflation is dwindling away—an economy in which real incomes are rising, even though nominal wages are rising less rapidly—an economy in which we can compete effectively abroad without a weak dollar.

That transition will be speeded to the extent all of us show, not just in our words but in our deeds, that the fight on inflation is, in fact, of the highest priority. We cannot expect that workers will long be restrained in their wage demands or businessmen in their

pricing policies if they feel that the consequence of self-restraint will be to fall behind in the race with their peers or their costs. We cannot simply rail at "speculators" in foreign exchange or gold or commodity markets if our own policies seem to justify their pessimism about the future course of inflation. We cannot reasonably bemoan low savings, historically high interest rates, and congestion in credit markets so long as the return on savings does not reflect the anticipated rate of inflation, and the Federal Government itself runs large deficits adding to the borrowing demands.

Rising demands for wages and cost-of-living protection, anticipatory price increases, skyrocketing gold and commodity prices, sharply declining values in the bond markets—all of these are symptomatic of the inflationary process and undermine the economic outlook. But none of them is inevitable, provided we turn around the expectations of inflation.

To achieve that essential objective will require sustained discipline, not just in monetary policy, but in other areas of public policy. That discipline will certainly need to be reflected in the budgetary decisions of this Congress.

In that connection, I fully appreciate the need for structural reform and reduction in taxation. Partly because of inflation, the total tax take, relative to GNP, is reaching a new peacetime high, discouraging investment, adding to costs, and blunting incentives. We do need to reverse that process. But the President nonetheless seems to me correct in emphasizing that the time has not yet come for tax reduction. Budgetary balance is neither here nor in prospect. Tax cuts, to put the point simply, need to be earned by spending restraint. That is where the challenge lies.

Beyond the broad decisions about monetary and fiscal policy, there is much more that can be done here and now to speed up the process of restoring price stability. For instance:

We can curtail more decisively our dependence on foreign energy, even at the expense of increased costs in the short run, because the alternative is to have still higher prices imposed on us by foreign suppliers over the indefinite future.

We can move to eliminate the impediments to competition still imposed in some industries by government regulation.

We can revise legislation that tends to ratchet up wages at the expense of employment.

We can review the mass of environmental safety and consumer regulations to make sure these worthy objectives are reached without undue impact on costs.

We can resist pressures to protect industries from foreign competition, particularly those industries with relatively high wage structures and wage settlements which have been sluggish in responding to the changing needs of the American consumer.

The list is neither exhaustive nor new. We have been slow to act because so much of it seems to cut across the grain of political sensitivities and, taken individually, many of the measures will not have a dramatic effect. But taken together, the effect would be large and none of it is out of keeping with our basic objectives in either economic or social policy.

I sense we are rightly coming to the conclusion that accelerating inflation, declining productivity, and energy dependence are not sustainable options for the United States. In concept, policies to wind down inflation have wide support. What remains is the challenge of converting intellectual consensus into practical action.

The Federal Reserve has a key role to play in that process. We intend to do our part—and to stick with it.

[Mr. Volcker's prepared statement on behalf of the Board of Governors of the Federal Reserve System appears along with the referred to report entitled "Monetary Policy Report to Congress Pursuant to the Full Employment and Balanced Growth Act of 1978":]

## Statement by Paul A. Volcker

Chairman, Board of Governors of the Federal Reserve System

I welcome this opportunity -- my first -- to appear before this Committee to discuss the Federal Reserve Board's semi-annual report on monetary policy. As required by the Full Employment and Balanced Growth Act of 1978, that report presents the objectives for monetary growth adopted by the Federal Open Market Committee for the coming year and relates those objectives to economic trends over the past year and to the outlook for the year ahead.

In presenting the report to the Committee, I would like to make a few more personal remarks about the direction that monetary policy is taking and how those policies fit into a broader framework of action to deal with the evident problems of the economy.

The first point that I would emphasize is that the near-term outlook for real economic activity and employment remains highly uncertain. It never has been easy to forecast the direction of aggregate activity around cyclical turning points, and, as one prediction of imminent recession after another has gone awry, the past year has been a particularly humbling experience for economic forecasters.

Important uncertainties continue to cloud the outlook for 1980. One of the most critical questions is whether consumers, faced with lower real incomes and expecting higher prices, will continue to spend an extraordinarily high proportion of their income despite heavy debt burdens and reduced liquidity. Purchasing

power is again being absorbed by sharply higher oil prices, and there is no assurance that that process will quickly come to an end. The President has, of course, submitted his budget for fiscal 1981. But international political developments have raised some new questions about prospects for defense spending in the years ahead, and there are uncertainties about other elements in the budget as it makes its way through the Congress.

In looking ahead and making judgments about these and other questions, most members of the Federal Reserve Board have shared the view of the Administration and most other economists that an economic downturn will probably develop sometime this year. However, such a result is by no means inevitable and many forecasters appear currently to be raising their sights.

Unfortunately, the range of uncertainty with respect to inflation is one of how much prices will rise, not whether. Price increases, at least as recorded in the most widely read indexes, could well accelerate in the first quarter partly because the latest round of oil price increases will be reflected in those numbers. The real question is how much progress can be made in reducing the inflation rate in the latter part of the year.

In the past, at critical junctures for economic stabilization policy, we have usually been more preoccupied with the possibility of near-term weakness in economic activity or other objectives than with the implications of our actions for future inflation. To some degree, that has been true even during the long period of expansion since 1975. As a consequence, fiscal and monetary

policies alike too often have been prematurely or excessively stimulative, or insufficiently restrictive. The result has been our now chronic inflationary problem, with a growing conviction on the part of many that this process is likely to continue. Anticipations of higher prices themselves help speed the inflationary process.

Nor can we demonstrate that the result has been beneficial in terms of other objectives. To the contrary, unemployment has been higher in the 1970's than in earlier decades. Productivity growth has declined. Capital spending has not kept up with the needs of a growing labor force. Financial markets have been disturbed and depressed, and institutions responsible for a substantial share of mortgage financing are coming under strain. The recurrent weakness of the foreign exchange value of the dollar has undercut our economic stability at home and our leadership abroad.

The broad objective of policy must be to break that ominous pattern. That is why dealing with inflation has properly been elevated to a position of high national priority. Success will require that policy be consistently and persistently oriented to that end. Vacillation and procrastination, out of fears of recession or otherwise, would run grave risks. Amid the present uncertainties, stimulative policies could well be misdirected in the short run; more importantly, far from assuring more growth over time, by aggravating the inflationary process and psychology they would threaten more instability and unemployment.

The implications for monetary policy are clear. While there may be legitimate debate about the impacts of monetary policy in

the short run, there is little doubt that inflation cannot persist in the long run unless it is accommodated by excessive expansion of money and credit. Put more affirmatively, restraint on growth in money and credit, maintained over a considerable period of time, must be an essential part of any program to deal with entrenched inflation and inflationary expectations. Accordingly, I see no alternative to a progressive slowing of growth of the monetary aggregates to lay the base for restored stability and growth.

The 1980 growth ranges established by the Federal Open Market Committee for the key monetary aggregates are in line with that basic, continuing objective. In the short run, we believe those targets are fully consistent with an orderly process of economic adjustment and modest growth, provided the inflation rate subsides as the year wears on. We also believe that, should inflationary pressures begin to build more strongly in the context of strengthening demand, those same targets would imply strong financial restraint. In fact, the restraint implied by the new targets would be inconsistent with higher rates of inflation over a significant period of time.

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developed financial instruments that increasingly have been used in place of more conventional means of payment or claims on well established financial institutions. Because these new forms of "money" or "near money" generally have been expanding rapidly in recent years, the redefined aggregates tend to have somewhat faster growth rates over the past few years than the comparable aggregates as previously defined. (The aggregates as previously defined are shown in Table II attached.) The FOMC's new growth ranges for 1980 should not be directly compared with results based on the former definitions of the aggregates. What is significant is that the ranges for the newly defined aggregates in 1980 are expected to result in further slowing of monetary growth this year, following some deceleration over the course of 1979.

As I implied earlier, the behavior of interest rates and the degree of pressure on financial markets in the year ahead will depend critically on the performance of the economy and the strength of inflationary pressures and expectations. Experience suggests that if real activity in fact weakens, interest rates -- particularly for short-term instruments -- could tend to decline as demands for money and credit moderate. As inflationary forces tend to recede, the decline could be more pronounced, and spread more fully into longer term markets. In those circumstances, such market developments would be constructive, tempering any weakness in real activity, and tending to support investment activity and housing. At the same time, persistent restraint on monetary

growth would be consistent with our resolve to resist inflation. The other side of the coin is that continued strong inflationary forces, accompanied by bulging credit demands, would tend to keep financial markets under strong pressure -- and that pressure should confine and dissipate those inflationary forces. In either case, movements of short-term market interest rates -- such as the federal funds rate -- should not necessarily be taken as harbingers of a fundamental change in the stance of monetary policy; that policy will in any event continue to be directed toward reining in excessive monetary growth.

Let there be no doubt; the Federal Reserve is determined to make every reasonable effort to work toward reducing monetary growth from the levels of recent years, not just in 1980, but in the years ahead.

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uncomfortable, with too much of the impact in the short term falling on employment and income rather than on prices.

Our aim must be otherwise. What all of us would like to achieve is as rapid a transition as we can manage to a more stable and productive economy -- an economy in which we can have more real growth and less unemployment because inflation is dwindling away -- an economy in which real incomes are rising even though nominal wages are rising less rapidly -- an economy in which we can compete effectively abroad without a weak dollar.

That transition will be speeded to the extent all of us show, not just in our words but in our deeds, that the fight on inflation is in fact of the highest priority. We cannot expect that workers will long be restrained in their wage demands, or businessmen in their pricing policies, if they feel the consequence of self-restraint will be to fall behind in a race with their peers or their costs. We cannot simply rail at "speculators" in foreign exchange, or gold, or commodity markets if our own policies seem to justify their pessimism about the future course of inflation. We cannot reasonably bemoan low savings, historically high interest rates and congestion in credit markets so long as the return on savings does not reflect the anticipated rate of inflation and the Federal Government itself runs large deficits, adding to borrowing demands.

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Beyond the broad decisions about monetary and fiscal policy, there is much more that can be done here and now to speed up the process of restoring price stability. For instance:

- We can curtail more decisively our dependence on foreign energy, even at the expense of increased costs in the short-run, because the alternative is to have still higher prices imposed on us by foreign suppliers over the indefinite future.

- We can move to eliminate the impediments to competition still imposed in some industries by government regulation.
- We can revise legislation that tends to ratchet up wages at the expense of employment.
- We can review the mass of environmental, safety, and consumer regulations to make sure these worthy objectives are reached without undue impact on costs.
- We can resist pressures to protect industries from foreign competition, particularly those industries with relatively high wage structures and wage settlements which have been sluggish in responding to the changing needs of the American consumer.

The list is neither exhaustive nor new. We have been slow to act because so much of it seems to cut across the grain of political sensitivities and, taken individually, many of the measures will not have a dramatic effect. But taken together, the effect would be large and none of it is out of keeping with our basic objectives in economic and social policy.

I sense we are rightly coming to the conclusion that accelerating inflation, declining productivity, and energy dependence are not sustainable options for the United States. In concept, policies to wind down inflation have wide support. What remains is the challenge of converting intellectual consensus into practical action.

The Federal Reserve has a key role to play in that process. We intend to do our part -- and to stick with it.

Table 1  
 Growth of the Newly Defined Monetary Aggregates  
 (Percentage change, fourth quarter to fourth quarter)

	<u>M-1A</u>	<u>M-1B</u>	<u>M-2</u>	<u>M-3</u>
1975	4.7	4.9	12.3	9.4
1976	5.5	6.0	13.7	11.4
1977	7.7	8.1	11.5	12.6
1978	7.4	8.2	8.4	11.3
1979	5.5 (6.8)*	8.0 (7.0)*	8.8	9.5
1980 FOMC range [midpoint]	3.5-6 [4.75]	4-6.5 [5.25]	6-9 [7.5]	6.5-9.5 [8.0]

\*Adjusted for effects of introduction in late 1978 of NOW accounts in New York State and automatic transfer accounts nationwide.

Table 2

Growth of the Old Monetary Aggregates  
(Percentage change, fourth quarter to fourth quarter)

	<u>M-1</u>	<u>M-2</u>	<u>M-3</u>
1975	4.6	8.4	11.1
1976	5.8	10.9	12.7
1977	7.9	9.8	11.7
1978	7.2	8.7	9.5
1979	5.5 (6.8)*	8.3	8.1
1980 FOMC range** [Midpoint]	3.5-6 [4.75]	5-8 [6.5]	5-8 [6.5]

\*Adjusted for effects of introduction in late 1978 of NOW accounts in New York State and automatic transfer accounts nationwide.

\*\*Staff estimates of ranges equivalent to those specified by Federal Open Market Committee for the new monetary aggregates.



Board of Governors of the Federal Reserve System



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**Monetary Policy Report to Congress  
Pursuant to the  
Full Employment and Balanced Growth Act of 1978**

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**February 19, 1980**



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## Letter of Transmittal

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BOARD OF GOVERNORS OF THE  
FEDERAL RESERVE SYSTEM  
Washington, D.C., February 19, 1980

THE PRESIDENT OF THE SENATE  
THE SPEAKER OF THE HOUSE OF REPRESENTATIVES.

The Board is pleased to submit its Monetary Policy Report to the Congress pursuant to the Full Employment and Balanced Growth Act of 1978.

Sincerely,  
Paul A. Volcker, Chairman

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## CHAPTER 1

## FEDERAL RESERVE POLICY AND THE OUTLOOK FOR 1980

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SECTION 1. THE OBJECTIVES OF MONETARY POLICY IN 1980

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Frequently in the past the decisions about stabilization policy seemed—perhaps sometimes misleadingly—to come down to a choice of how strongly to encourage recovery or to retard expansion. Decision-makers face a much more complicated set of circumstances today. For some time now, most forecasters have suggested that the economy is on the verge of recession, but the recession has not appeared. Over the same period inflation has continued apace. The outlook for the economy remains obscured by major uncertainties, ranging from the possible economic effects of current international tensions and the prospects for world oil prices and supplies to the attitudes of investors around the world toward the dollar and the threat that inflation may bring increasing distortions of traditional spending and saving patterns. It is not within the powers of monetary and fiscal policy to resolve all of these uncertainties and to ensure a fully satisfactory economic performance.

Nonetheless, the appropriate direction for policy is clear. The greatest contribution the monetary and fiscal authorities can make is to impart a sense of long-range stability in policy and in the economic environment. In present circumstances, that requires an approach that provides assurance that the momentum of inflation will be arrested. Inflation not only represents an imminent threat to the sustainability of the current business expansion, but it also lies at the heart of many of the longer-range problems of the economy, such as the inadequacy of business capital formation, and the related declines in the productivity and real earnings of American workers, and the vulnerability of the dollar in foreign exchange markets.

Monetary policy clearly has a major role to play in the restoration of price stability. Regardless of the source of the initial impetus, inflation can be sustained over the long run only if the resulting higher level of dollar expenditures is accommodated through monetary expansion. The Federal Reserve is determined not to provide that sustenance, but will adhere instead to a course, in 1980 and beyond, aimed at wringing the inflation out of the economy over time.

If recessionary tendencies should develop during 1980--as many expect--the steady anti-inflationary policy stance represented by continuing restraint on growth in the supply of money and credit would be consistent with an easing of conditions in financial markets, as demands for money and credit weaken. That would provide support for economic activity, and would help assure the avoidance of a cumulating, deepening downswing. If, on the other hand, inflationary pressures mount, a policy of restrained growth in money and credit would lead to greater tautness in financial markets, thereby damping the expansion of aggregate demand. In any event, prospects for dealing with the inflation problem without serious economic disruption will be materially enhanced if other elements of government also exhibit a firm anti-inflationary commitment and if workers and management recognize that a moderation of their wage demands and pricing policies is in their own long-range interests as well as those of the nation as a whole.

SECTION 2. THE GROWTH OF MONEY AND CREDIT IN 1980

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At its meeting earlier this month, the Federal Open Market Committee established ranges of growth for the monetary aggregates that it believed, in light of the prospects for fiscal policy and for private demands, would impose appropriate restraint on inflationary forces in 1980. Measured from the fourth quarter of 1979 to the fourth quarter of 1980, the ranges are: for M-1A, 3-1/2 to 6 percent; for M-1B, 4 to 6-1/2 percent; for M-2, 6 to 9 percent; and for M-3, 6-1/2 to 9-1/2 percent. These ranges are based on the newly adopted definitions of the monetary aggregates; a description of this redefinition, which was announced on February 7, is included in Appendix A to this report. The FOMC also projected that bank credit will expand between 6 and 9 percent during the current year.

The FOMC's ranges indicate the Federal Reserve's intention to seek an appreciable slowing of monetary expansion from the rates observed in 1979, and thus to move toward non-inflationary rates of growth. The deceleration is especially marked in the case of the narrower aggregates. The midpoint of the range for M-1A, for instance, is 4-3/4 percent; in 1979, M-1A increased 5.5 percent. The difference between these two figures actually understates the degree of deceleration in economic terms, however, since the adjustment of the public to the introduction of ATS and New York State NOW accounts probably reduced the growth of M-1A last year by roughly 1-1/4 percentage points as funds were transferred out of existing demand deposits to such accounts. In setting the range for 1980, the FOMC assumed, in the context of present law, that the public's adjustment process is about completed and that such shifting from demand deposits to ATS and NOW accounts will have little

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further impact on M-1A this year. Of course, if NOW accounts were authorized on a nationwide basis, some downward adjustment of the present M-1A range could be needed in order to take account of the accelerated shift out of conventional demand deposits that might result.

The range for M-1B--which includes checkable interest-bearing deposits in addition to currency and demand deposits--also implies a substantial slowing; the mid-point of the range, at 5-1/4 percent, is well below the actual 7.3 percent expansion in 1979. Of course, because ATS and NOW accounts are included in M-1B, the expansion in 1979 was enlarged by one-time transfers from regular savings deposits and probably other assets to the newly offered transactions accounts--the reverse of the experience with M-1A. For similar reasons, enactment of nationwide NOW account legislation would be expected to raise the growth of this money stock measure this year, and the present range would have to be reconsidered in that light.

M-2 likely would not be affected importantly by NOW account legislation, since it encompasses the major categories of assets that are close substitutes for NOW accounts. Besides M-1B, M-2 includes savings and small denomination time deposits at commercial banks and thrift institutions, plus certain other highly liquid instruments--namely, money market mutual fund shares, overnight repurchase agreements, and overnight Eurodollar deposits at Caribbean branches of U.S. banks. The recently introduced 2-1/2 year certificate, which has no specified minimum denomination and carries a ceiling rate close to that on Treasury notes, should serve to bolster growth of small time deposits. Six-month money market certificates likely also will remain popular. Nonetheless, absent a steep decline in market interest

rates, the total of interest-bearing deposits subject to federal rate ceilings probably will continue in the months ahead to grow slowly by historical standards. However, growth of M-2 should be buoyed in 1980 as in 1979 by sizable flows into the money market funds. On balance, the prospect is that M-2 this year will grow at a rate somewhat below the 8.8 percent increase of 1979.

The final monetary measure, M-3, includes, in addition to M-2, large denomination time deposits of \$100,000 or more and term (more than one-day) RPs at banks and thrift institutions. It is thus a very broad aggregate, encompassing most of the liabilities of the depository institutions plus money market mutual funds. Given the moderation of demands for credit—especially at commercial banks—anticipated for the current year, M-3 appears likely to grow less than the 9.5 percent increase recorded in 1979.

It should be emphasized that, although we view these new monetary definitions as better measures of financial behavior today than the old definitions, the institutional framework is changing rapidly, and this implies an inevitable uncertainty about the behavior of any monetary aggregate. Furthermore, the Committee recognizes that other aspects of financial and economic developments will require careful monitoring in the process of policy determination and implementation. The ranges specified for the monetary aggregates appear adequate to the Committee to provide the necessary degree of flexibility.



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### SECTION 3. THE OUTLOOK FOR THE ECONOMY IN 1980

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It is never an easy matter to project the course of the economy, but the current circumstances pose exceptional difficulties for forecasters. Aside from the uncertainties associated with international political tensions, we find ourselves in an economic environment characterized by historically high rates of interest and inflation, so that past experience may provide only a limited guide to prospective behavior. In order, though, to give the Congress an indication of the Federal Reserve's views about the outlook for the economy, the Board of Governors has assembled in the table, below, ranges that encompass the judgments of its individual members about the most likely outcomes for several key variables.

	<u>Actual</u> 1979	<u>Projected</u> 1980
Change from fourth quarter to fourth quarter, percent		
Nominal GNP	9.9	7-1/2 to 11
Real GNP	0.8	-2-1/2 to 1/2
Implicit price deflator	9.0	9 to 11
Average level in fourth quarter		
Employment (millions)	97.7	97 to 98-3/4
Unemployment rate (percent)	5.9	6-3/4 to 8
Annual rate of change in fourth quarter, percent		
Consumer Price Index	13.2	8-3/4 to 12

The Board members' projections, it must be emphasized, rest on certain important assumptions. It is, for example, assumed that, although the cost of imported oil may rise moderately further over the course of this year, there will not be a repetition of the 1979 price run-up and fuel supplies

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will not be disrupted. It is also assumed that overall federal spending in 1980 will generally be in line with the Administration's current forecast and that there is no federal tax cut.

As can be seen, even with these common assumptions, the range of probable outcomes is relatively wide. Even so, there is recognition that, while considered less likely, the actual outcomes could fall outside of the indicated ranges. Such is the nature of the uncertainties in the economic outlook at present.

Most members of the Board believe that a downturn in activity is likely sometime in 1980. Production cutbacks in the auto sector and a drop in residential construction activity already have occurred; meanwhile, a rising oil import bill continues to act as a drag on aggregate demand. With these depressants on employment and income growth, consumer spending is expected to slacken in the months ahead. It is likely that the tighter consumer and mortgage credit conditions now existing and the already high debt obligations of households will encourage some recovery in the abnormally low personal saving rate in coming quarters. The weakening of consumer demand would also tend to damp plant and equipment spending as softer markets tend to deter businesses from outlays that would add to excess productive capacity. Net exports might rise somewhat, however, owing to the impact on import volume of the weakness in domestic spending and production.

In the labor markets, employment may be flat this year, and could well decline somewhat in the goods-producing sectors. At the same time, the growth of the labor force probably will slow, reflecting in part the reduced growth of the working age population but also the usual cyclical response to

slack demand for workers. The unemployment rate, which turned upward last month, is likely to remain in an uptrend over the remainder of the year.

Even in such an economic environment, progress in reducing inflation will be delayed. Indeed, in the first quarter, the rise of the Consumer Price Index could accelerate, owing in large measure to the latest round of oil price increases and to the lagged impact on the index of the rise in mortgage rates last fall. Throughout the coming year, wage demands will reflect efforts of workers to catch up with past inflation, and pressures on unit labor costs may be intensified by cyclical weakness in productivity. Energy prices probably will continue to rise rapidly, as recent increases in OPEC prices are passed through to consumers and as domestic gas and oil markets are gradually freed from controls.

Should aggregate demand prove relatively strong, as some think possible, inflationary pressures across the economy could prove more persistent. For example, it must be recognized that any substantial increase in defense spending beyond what already is contemplated in the Administration's budget could significantly alter the economic outlook. The lag between authorization and actual federal outlay may be quite long in the case of military hardware, but expectational impacts on employment, production, and private spending can emerge fairly quickly.

SECTION 4. THE ADMINISTRATION'S SHORT-TERM ECONOMIC GOALS AND THE  
RELATIONSHIP OF THE FEDERAL RESERVE'S MONETARY OBJECTIVES  
TO THOSE GOALS

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The President's Economic Report, submitted to the Congress last month, lays out the following short-term goals for the economy:

	<u>1980</u>	<u>1981</u>
Change from fourth quarter to fourth quarter, percent		
Real GNP	-1.0	2.8
Consumer prices	10.7	8.7
Real disposable income	.5	1.1
Productivity	-.3	1.3
Average level in fourth quarter		
Employment (millions)	97.8	99.7
Unemployment rate (percent)	7.5	7.3

These goals, the Economic Report indicates, should be viewed as forecasts rather than as indications of the Administration's desires. The Administration expects a mild recession, not lasting much past the middle of 1980. A recovery then begins and carries through 1981. The Consumer Price Index rises much less rapidly this year than in 1979 (when it increased 13.3 percent), largely in reflection of an expected slowing in the rise of energy prices and of home purchase and financing costs. A broad price measure less affected by these special factors, the implicit GNP deflator, is projected to rise 9 percent in 1980, the same as in 1979, and to slow only to 8.6 percent in 1981.

There is no apparent incompatibility between the Federal Reserve's 1980 monetary growth ranges and the economic forecast of the Administration for 1980. The Administration has projected a rise in nominal GNP of about

-11-

8 percent; this figure is well within the capacity of the FOMC's monetary ranges to finance.

With regard to the more distant future, the pattern of developments that appears likely this year would seem to be consistent with the resumption of moderate expansion in economic activity in 1981. However, the chances of sustaining an advance over time would be greatly enhanced, in an environment of continued monetary restraint, if there were greater progress in reducing inflationary pressures than is suggested by the Administration's price forecast. Such progress would depend on, among other things, continued fiscal prudence, moderate wage and price behavior by labor and business, an improved productivity performance, and maintenance of a strong dollar on exchange markets.

## CHAPTER 2

## A REVIEW OF RECENT ECONOMIC AND FINANCIAL DEVELOPMENTS

SECTION 1. OVERVIEW OF DEVELOPMENTS IN 1979

---

One year ago, the Federal Reserve reported to the Congress, as required by the Full Employment and Balanced Growth Act, its objectives for 1979. The Board indicated that, in light of growing pressures on resource availability, a moderation in the rate of economic expansion was essential if inflationary forces were to be contained. The pace of price advance had already accelerated over the preceding year, and it was recognized that if this tendency toward faster inflation was not reversed the progress that had been achieved by the November 1, 1978, program to bolster the dollar on foreign exchange markets would be jeopardized and the dangers of serious economic disruption would be heightened. Consequently, at its February meeting, the Federal Open Market Committee had set growth ranges for the major monetary aggregates that would be consistent with reasonable restraint of demands for goods and services in the economy.

The first half of 1979 saw a number of unanticipated, negative developments. Economic activity was depressed by inclement weather, by labor disputes, and by gasoline shortages. More critically, foreign oil producers posted drastic price increases, giving added impetus to inflation and draining income from the U.S. economy. In this environment, the Board reported in July that there appeared a significant threat of a mild recession in the months ahead. It also noted that there was little hope of a near-term slowing of inflation. Under these circumstances, the Federal Open Market Committee reaffirmed the previous monetary aggregates ranges at its July meeting.

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Aggregate demand actually proved stronger than generally expected in the second half of 1979, largely because consumers displayed a surprising willingness to spend, reducing their rate of saving to an extraordinarily low level. Real gross national product rose moderately, and the overall unemployment rate remained stable. Inflation, as measured by the implicit GNP deflator, didn't abate, but neither did it accelerate, as labor costs and food prices behaved somewhat more favorably than anticipated.

Taking 1979 as a whole, monetary expansion was broadly consistent with the FOMC's objectives--with the major money stock measures falling close to or within the upper halves of the Committee's announced ranges. Meanwhile, real GNP growth was somewhat less rapid and inflation somewhat more rapid than might have been expected last February. Energy supply and price developments provide much of the explanation for this adverse mix of output and inflation; they also represent a major peril to the satisfactory performance of the economy in 1980. Indeed, more secure energy supplies and control of inflation are necessary conditions for the longer-range progress of our economy, and must remain priority matters for public policy until they are achieved.

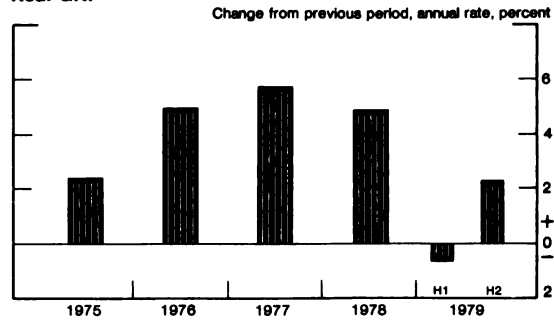
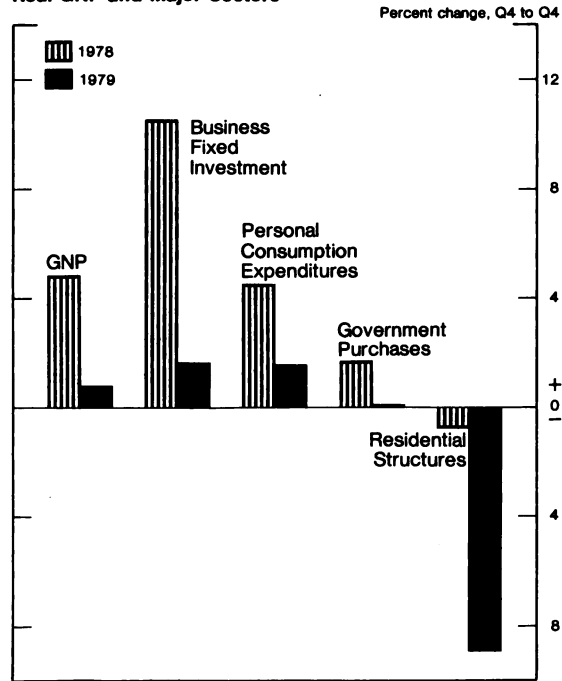
SECTION 2. ECONOMIC ACTIVITY IN 1979

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Economic activity registered only a small gain last year, following almost four years of brisk expansion. Real gross national product increased about one percent over the four quarters of 1979; industrial production rose a bit early in the year, but then edged off, finishing the year just marginally above the December 1978 level. Two fundamental factors exerted a pervasive damping influence on aggregate private demand: a near doubling of the average cost of imported oil, which drained income to foreign producers and exacerbated underlying inflationary pressures, and a posture of increasing restraint on the parts of monetary and fiscal policy to contain those pressures and to prevent a worsening of long-range price trends.

While these factors were tending to moderate growth of output and expenditure throughout the past year, quarterly movements in activity were importantly influenced by a series of unexpected shocks. In the winter months, unusually severe weather in many parts of the nation depressed activity in several sectors. In the spring, real GNP declined appreciably in response to strikes that disrupted production and transportation and to shortages of gasoline. As the strikes ended and gasoline lines disappeared in the summer, activity snapped back smartly, especially in the retail sector where auto sales were boosted by price incentives offered by dealers and manufacturers in an effort to cut back inventories. Real GNP growth slowed again in the final months of the year, as the special elements of strength in the third quarter dissipated and the basic restraining influences in the economy dominated.

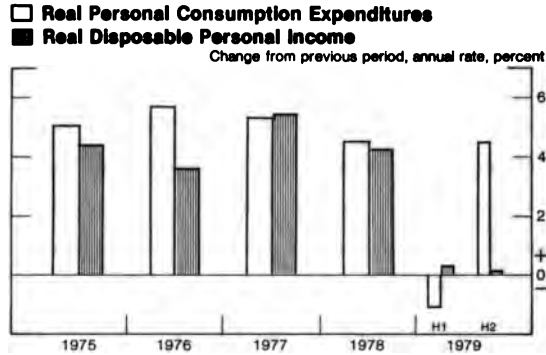
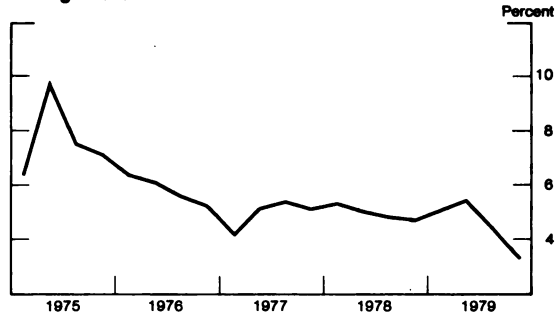
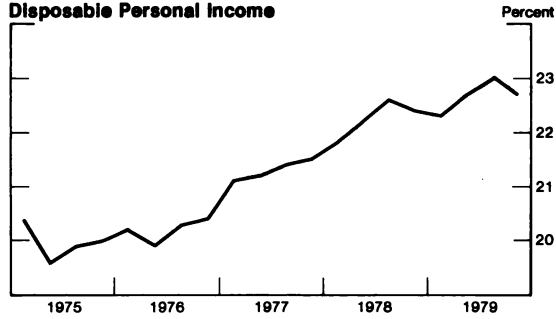


**Real GNP****Real GNP and Major Sectors**

Among the major sectors of the economy, the greatest weakness during 1979 was in residential construction and consumer durables. This pattern is typical of periods when aggregate activity levels off, particularly when there is a tightening of financial markets, as there was last year. In 1979, however, the softness of spending on consumer durables was exacerbated by the effects of gasoline price and supply developments on the demand for automobiles. Consumer spending on other items proved quite robust, and total personal consumption expenditures rose even though real disposable income was virtually flat. Business fixed investment, which normally lags cyclical turning points, posted a small real gain in 1979; at the same time, perhaps because an economic slowdown was widely anticipated, firms maintained a tight rein on stocks, and despite the problems of the auto sector, inventory accumulation was reduced over the year. Governmental outlays were flat in 1979, reflecting at least partly public sentiment for restraint on taxes and spending. The one major area of strength was the international trade sector; in constant dollar terms, the net export balance grew substantially as a result of the relatively faster expansion of foreign economies and the continuing effects on exports and imports of past exchange-rate changes.

#### Personal Consumption Expenditures

Real consumer outlays grew 1-1/2 percent during 1979, compared with a 4-1/2 percent gain during 1978. Underlying the weakness in consumer spending was a still sharper deceleration in real disposable income, which rose only 1/4 percent during 1979 after rising 4-1/4 percent in the preceding year. Growth of nominal income slowed significantly, and household buying power was further eroded by accelerating inflation and by the rise in tax burdens

**Savings Rate****Household Debt Repayment Relative to Disposable Personal Income**

related to higher social security taxes and to the interaction of inflation and a progressive income tax.

All of the advance in real consumer spending occurred in the second half of the year when the saving propensities of households fell to historically low levels. The personal saving rate in the fourth quarter was about 3-1/4 percent—one percentage point less than the previous post-Korean War record low. The rise in consumer spending after mid-year was to some extent a rebound from the weak second quarter, when gasoline shortages had disrupted normal spending patterns and cut demand for large fuel-inefficient cars. In response to falling sales and excessive inventories, domestic automobile producers instituted major sales promotion campaigns in the third quarter and again near the end of the year. As a result, sales were boosted noticeably; indeed, the higher selling rates may well have involved some "borrowing" from future periods.

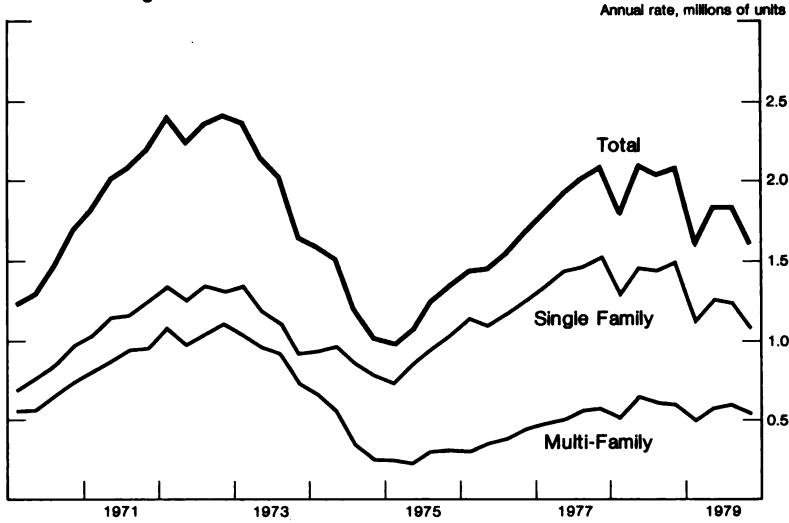
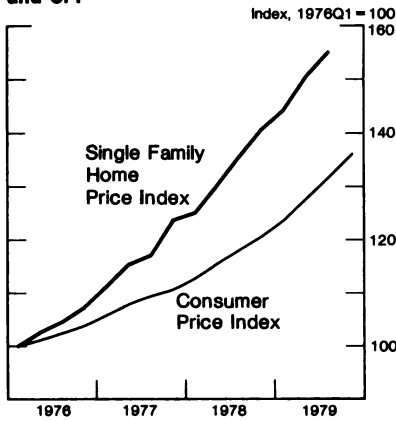
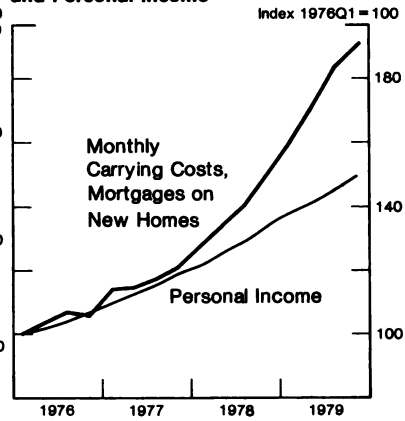
Consumer sentiment, as measured by opinion surveys, began to deteriorate in 1978 and worsened in 1979, reaching levels that in the past have been associated with recessionary periods. Previous experience with these surveys suggests that there should have been a cyclical downturn in consumer spending. That such a decline did not occur appears at least partly attributable to the strength of inflationary expectations, which encouraged a buy-in-advance mentality. In the latter part of the year, however, consumers began to exhibit less eagerness to purchase durable goods in anticipation of future price increases and to show greater concern about high interest rates and lessened credit availability. Given the already reduced liquidity of the household sector associated with further heavy borrowing in 1979, a turn toward somewhat more cautious spending patterns would not be at all surprising.

Residential Construction

Expenditures for residential construction, in constant dollars, fell about 8 percent in 1979; given the magnitude of the rise in interest rates over 1978 and 1979, this is a modest decline by historical standards. The demand for housing was sustained by underlying demographic trends--including substantial population migration and rapid household formation--and by the growing interest in homes as an investment and as an inflation hedge. The combined effects of rising house prices and mortgage interest rates caused the monthly carrying costs of homeownership to climb steeply, but buyers were willing to devote an increasing share of their income to housing. At the same time, the potentially disruptive effects of rising market interest rates on mortgage credit availability were considerably ameliorated by such institutional developments as the improved ability of thrift institutions to compete for lendable funds, most notably through issuance of 6-month money market certificates, and the increasing use of mortgage-related securities.

Private housing starts averaged 1.8 million, at an annual rate, during the first three quarters of 1979, down from the 2.1 million pace in the latter part of 1978. Starts fell to about a 1.5 million rate in November and December, however, when the terms and availability of construction and mortgage credit tightened dramatically in response to the October 6 monetary actions by the Federal Reserve. Home sales also fell in the closing months of the year, and prices gave some sign of leveling off. In contrast, though, to the 1973 housing downturn, builders are not saddled with outsized inventories of unsold units and rental vacancy rates generally are very low.

Over the course of 1979, single family starts fell almost a third from the very high level of the preceding year. Starts of multi-family units

**Private Housing Starts****New Home Prices and CPI****Monthly Carrying Costs and Personal Income**

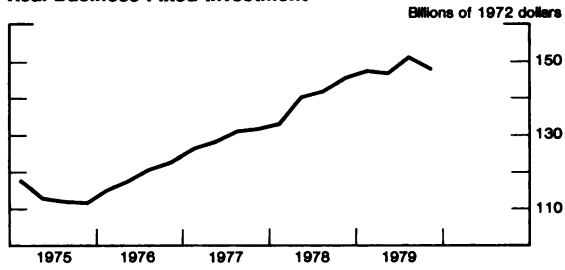
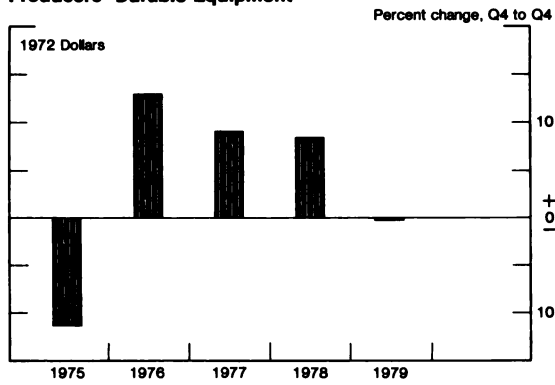
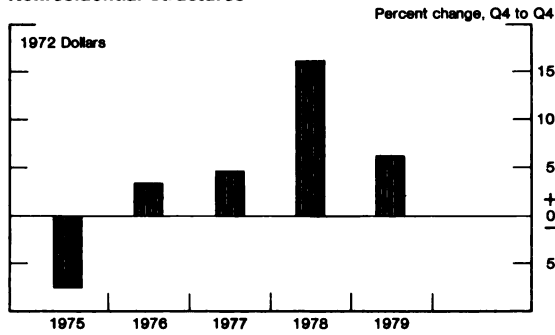
-22-

declined only 10 percent. An increase in starts of multi-family units built for sale as condominiums or cooperatives was more than offset by a decline in unsubsidized rental units. Building under the Section 8 rental-subsidy program of the Department of Housing and Urban Development accounted for one-quarter of all multi-family units, about the same proportion as in 1978.

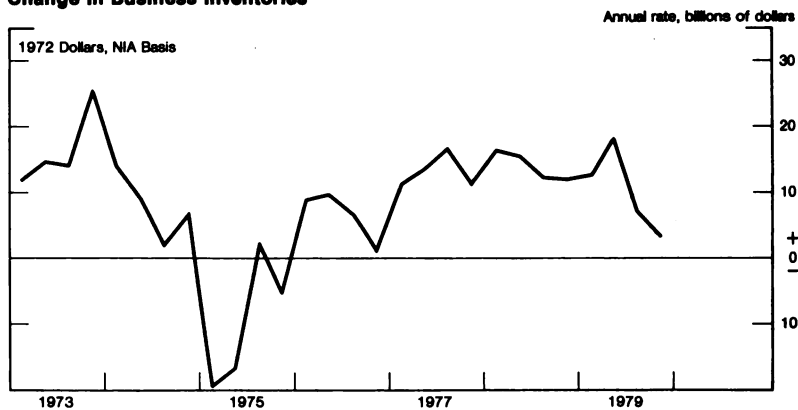
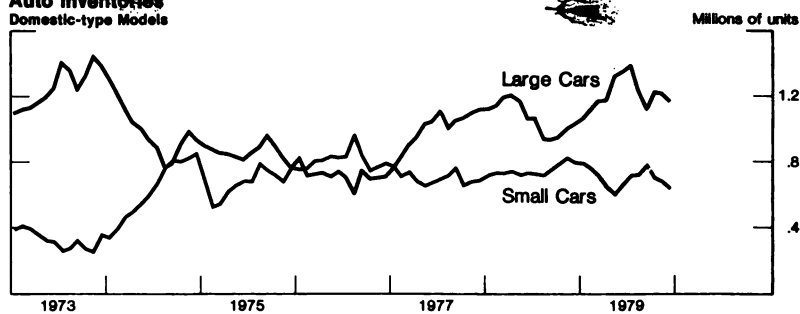
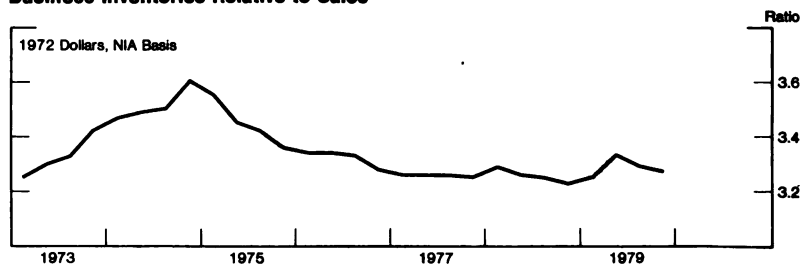
#### Business Spending

Spending policies of businesses were generally cautious last year as firms, anticipating some slowing of sales, attempted to avoid creating excess capacity or accumulating unwanted inventories. Real business fixed investment rose only 1-3/4 percent during 1979 compared with 10-1/2 percent in the previous year. As has been common in the advanced stages of economic expansions, spending increases were concentrated in structures, for which there is a long lag between the formulation of plans and the completion of new facilities; earlier in the expansion, capital spending had been dominated by shorter-lived producers' durable equipment such as trucks and fleet autos. Most of the advance in nonresidential structures during 1979 was for commercial and industrial buildings. Investment in equipment was little changed over the year, with gains in machinery and aircraft offsetting declines in motor vehicles.

Given the continuing need for new capital to improve productivity, and thereby to alleviate inflationary pressures and to support rising living standards, the level of business fixed investment last year left much to be desired. After allowance for replacement requirements, the net addition to the nation's capital stock was small. At the end of 1979, the ratio of the stock of business fixed capital to the size of the labor force differed little from the 1975 level; in contrast, the capital-labor ratio increased

**Real Business Fixed Investment****Producers' Durable Equipment****Nonresidential Structures**



**Change in Business Inventories****Auto Inventories**  
Domestic-type Models**Business Inventories Relative to Sales**

-25-

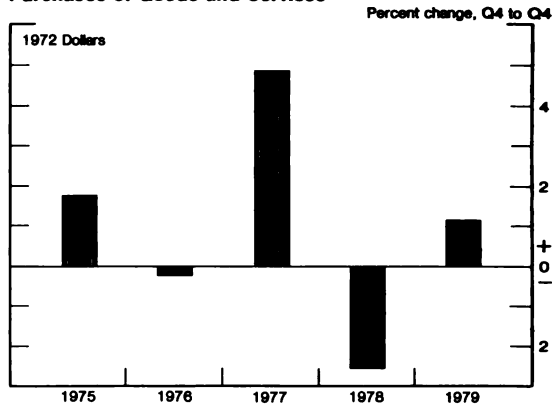
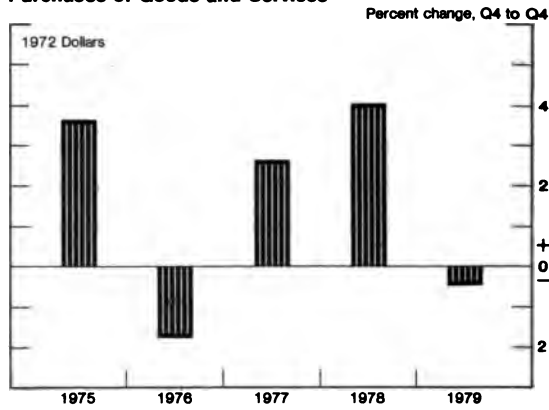
at an average annual rate of 2.7 percent over the decade of the 1960s, when productivity and real income per capita grew rapidly.

Businesses generally attempted to maintain lean inventories last year. Total inventory investment in constant dollars did accelerate during the first half of the year, however, reflecting primarily an inventory imbalance for large domestic automobiles. After mid-year, however, auto makers combined production cutbacks with price incentives to bring stocks back into line with sales. Outside of the automobile industry, businesses generally succeeded in controlling inventory positions throughout 1979. This goal became especially important toward the end of the year when short-term interest rates rose substantially, increasing inventory carrying costs. By year-end, the real stock-sales ratio for manufacturing and trade was in the normal range, suggesting an absence of the kind of inventory imbalances that frequently have aggravated recessionary tendencies in the past.

#### Government Sector

Government outlays for goods and services were about unchanged during 1979 following a moderate rise during the previous year. Public sentiment for spending restraint continued to affect decision-making by all levels of government; federal fiscal policy was additionally influenced by the need to avoid any aggravation of inflationary forces in the economy.

Real federal purchases grew about one percent during 1979, as higher defense spending more than offset slower outlay growth in the strategic petroleum reserve and farm price support programs. Total federal expenditures—including transfers—recorded a faster rate of growth in 1979 than in 1978, owing in part to a large mid-year cost of living increase for social security recipients and to higher interest payments on the public debt. However,

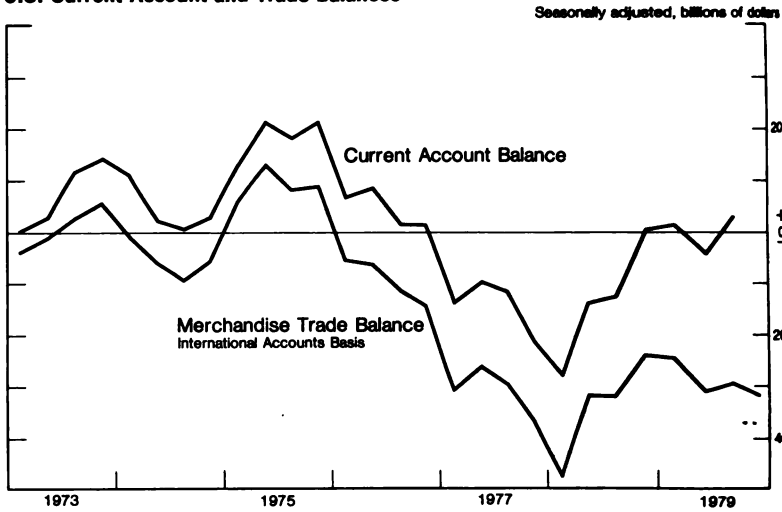
**Federal Government  
Purchases of Goods and Services****State and Local Government  
Purchases of Goods and Services**

inflation-induced increases in nominal incomes and previously legislated increases in social security taxes resulted in a sizable rise in federal tax collections, and, as a result, the federal budget deficit--on a national income accounts basis--declined considerably over the year. The high employment budget surplus, an indicator of the thrust of discretionary fiscal policy, increased, signaling greater restraint on aggregate demand.

At the state and local level, real purchases of goods and services declined marginally during 1979 following a sizable increase a year earlier. Construction spending was particularly depressed following federal cutbacks in grants for local public works and public employment programs. Moreover, states and localities also attempted to limit spending by holding down employment growth; the increase in employment during 1979 was about the same as in the previous year but was considerably less than the average annual gains recorded earlier in the decade. Despite this slowdown in the pace of spending, the fiscal position of states and localities deteriorated in 1979 as revenue growth fell far short of the gains posted in the previous year. Tax cuts by many governmental units and lower car sales and gasoline consumption limited the growth of income and sales tax revenues. As a result, states and localities showed their first operating deficit (budget position net of social insurance funds) in three years.

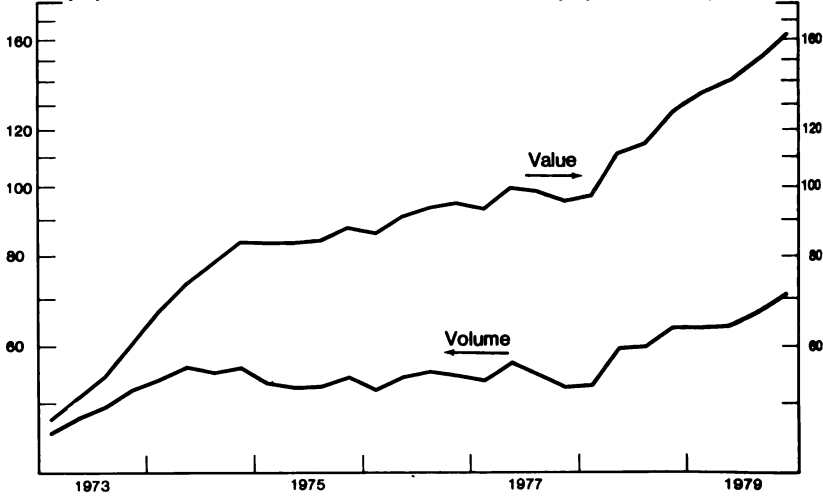
#### International Trade and Payments

Net exports of goods and services were the only major sector that turned in as strong a performance in 1979 as in 1978. On a GNP basis, real net exports increased about \$8 billion last year. The U.S. merchandise trade deficit, although swollen by a \$18 billion increase in the cost of imported oil, was \$29 billion in 1979, \$5 billion less than in 1978.

**U.S. Current Account and Trade Balances****Nonagricultural Exports**

Seasonally adjusted annual rate, billions of 1972 dollars

Seasonally adjusted annual rate, billions of dollars

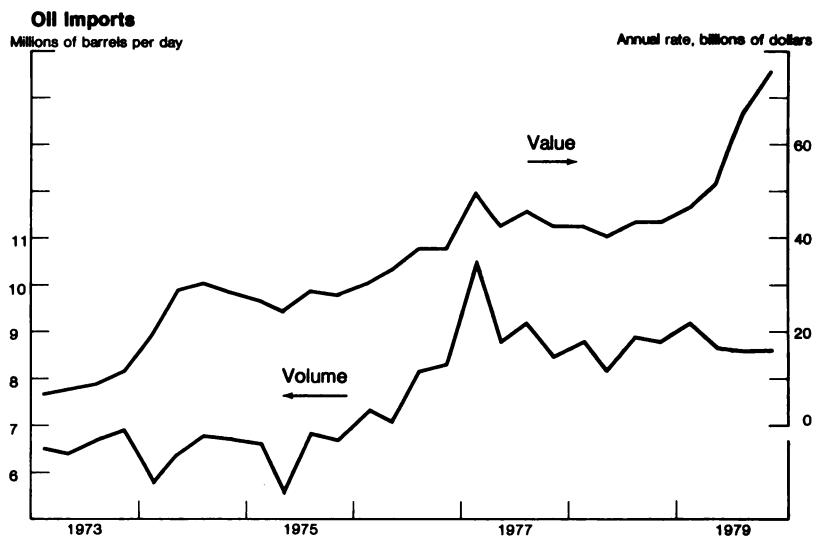


-29-

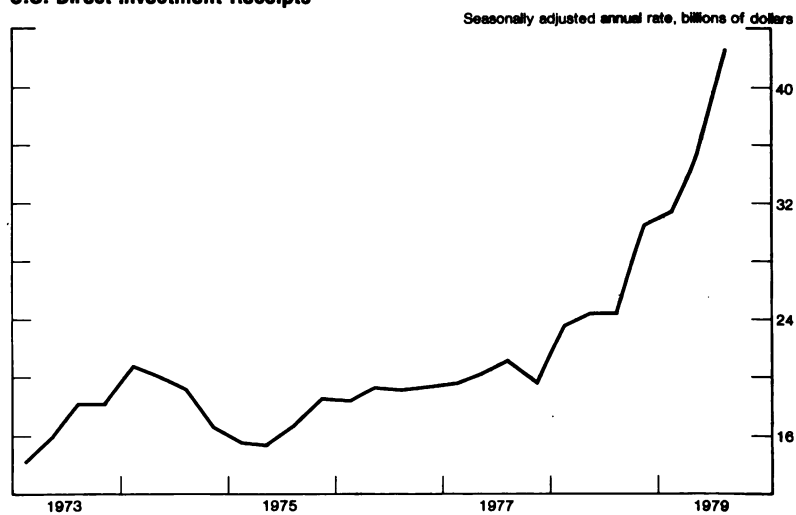
The volume of exports continued to expand rapidly during the past year. Agricultural exports jumped to record rates in the second half as drought in the Soviet Union and Eastern Europe boosted sales. More importantly, the volume of nonagricultural exports rose about 12 percent in 1979; U.S. producers benefited from an improved competitive position brought about by the depreciation of the dollar in 1977 and 1978 and from relatively robust economic growth abroad.

In contrast, U.S. import demand was damped by the sluggish performance of domestic income and industrial production. Imports other than oil rose only marginally in volume terms in 1979, although foreign auto producers captured a record share of the U.S. market as consumer preferences shifted toward fuel-efficient cars. At the same time, the volume of oil imports was virtually unchanged from the 1978 level, with reduced consumption offsetting the impact of a rebuilding of inventories. World oil prices, after remaining flat for two years, jumped sharply. The average cost per barrel of imported oil in December, 1979, was 87 percent above the level at the end of 1978. By the fourth quarter, U.S. oil imports were at an annual rate of \$75 billion, compared with a \$43 billion rate a year earlier.

The current account, which was in deficit by about \$14 billion in each of the two previous years, was roughly in balance in 1979. Net receipts from service transactions, continuing their rapid growth of recent years, offset the merchandise trade deficit. The net return on foreign direct investment was especially strong, reflecting continued economic expansion abroad, the favorable effects of the 1977-78 depreciation on the dollar value of foreign profits, and the surge in overseas earnings of U.S. oil companies. Total earnings on U.S. direct investments abroad were on the order of \$37 billion;



**U.S. Direct Investment Receipts**



-31-

perhaps half of these earnings were reinvested abroad and therefore recorded also as an outflow of U.S. private capital. Earnings of foreign direct investments in the United States also rose, but they are on a much smaller scale.



### SECTION 3. PRICES, WAGES, AND PRODUCTIVITY

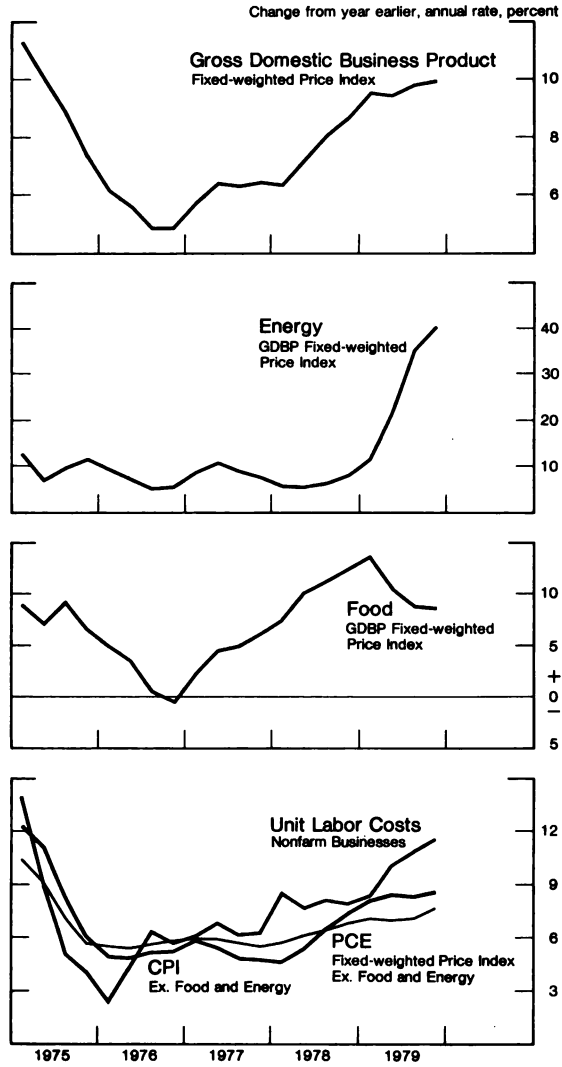
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In 1979 prices advanced at historically high rates, primarily as a result of pressures from energy and labor costs. The fixed-weighted price index for gross domestic business product, a broad measure of aggregate prices, rose about 10 percent during 1979, a pace more than 1-1/4 percentage points above the previous year's rate of increase. Other price measures increased even more: the fixed-weighted price index for personal consumption expenditures rose 10-3/4 percent while the Consumer Price Index increased 13-1/4 percent, the differences between these two indicators reflecting mainly alternative conceptual treatments of homeownership costs. At the producer level, prices of finished consumer goods were up about 12-1/2 percent over the course of last year.

Rapid increases in energy prices, particularly for petroleum products, dominated inflation developments during the year. Imported oil priced under long-term contracts rose steadily, from an official OPEC contract price of \$12.91 per barrel in December 1978 to prices ranging from \$24 to \$30 per barrel one year later. Moreover, the stockpiling of petroleum by some countries and production cutbacks in Iran resulted in spot market prices that were considerably above official OPEC levels. At the same time, in the U.S. market the Producer Price Index for crude oil was up about 50 percent during 1979, reflecting both price increases for domestic uncontrolled oil and the initiation of the Administration's decontrol program on June 1.

The large increases experienced in petroleum prices had significant direct and indirect effects. Retail gasoline prices rose more than 50 percent, and fuel oil prices advanced almost 60 percent despite some softening

—33—

**Labor Costs and Prices**

-34-

in demand that was attributable both to conservation and to mild weather late in the year. In addition, rising energy costs led to faster price increases for a number of other consumer goods, including transportation services and residential rents. At the producer level, prices of goods such as industrial chemicals and plastics also reflected the steep runup in energy costs.

In contrast to energy prices, food prices increased less sharply in 1979 than in 1978. Over the four quarters, consumer food prices rose 10-1/4 percent, following an 11-3/4 percent increase in 1978. Although beef remained in relatively short supply during 1979, the greater availability of other meats and poultry contributed to some deceleration of food prices during the summer.

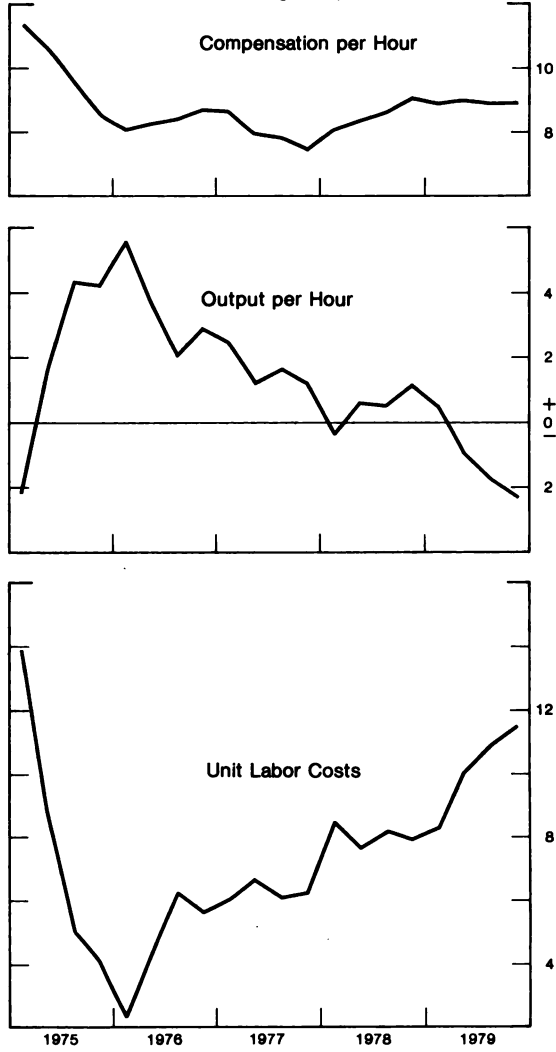
Inflationary pressures persisted in sectors outside energy and food. Prices of consumer goods excluding food and energy accelerated during 1979: the PCE fixed-weighted price sub-index for such items rose 7-3/4 percent in 1979 compared with 7 percent the previous year, and the corresponding CPI sub-index rose at an even faster rate. Prices of capital equipment and nonresidential structures rose at a faster pace in 1979 than in 1978. Price movements in commodity markets were quite volatile throughout the year and reflected considerable speculative activity related in part to international political and military tensions.

Wage increases in the nonfarm business sector moderated very slightly to 8 percent in 1979, compared with 8-1/2 percent the year before. Compensation per hour, which includes fringe benefits and employer contributions for social insurance as well as wages, rose almost 9 percent, just a shade less than in 1978. The Administration's voluntary pay standard probably restrained the advance in compensation somewhat in the face of accelerated price inflation;

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**Unit Cost Indicators****Nonfarm Business Sector**

Change from year earlier, annual rate, percent



-36-

however, sectors in which cost-of-living protection is prevalent, such as manufacturing, generally experienced the largest gains even though demand for labor in those sectors was relatively weak.

Labor productivity--that is, output per hour worked--declined 2-1/4 percent in the nonfarm business sector. As a result, despite the slowing of compensation, the rise of unit labor costs accelerated sharply, from 8 percent in 1978 to 11-1/2 percent in 1979. The poor performance of productivity reflected in part the continuation of the weak trend of recent years, associated with sluggish growth of the capital stock, changes in the composition of the labor force, and other long-range factors. In addition, however, there was a cyclical element in the drop in productivity; there is normally a tendency for output per hour to drop when economic expansion decelerates, as employers initially are loath to lay off trained workers for what might prove a short period of slack.

Many workers saw their wage gains outstripped by price increases during 1979. The lack of progress in real wages is not surprising, given the drop in productivity and the adverse terms-of-trade impact of the surge in foreign oil prices. Nonetheless, American workers have become accustomed to an upward trend in their purchasing power, and there are likely to be strong catch-up wage demands this year. The Administration's 1980 wage standards take this fact into account, permitting somewhat bigger wage hikes for those workers who experienced relatively small gains in 1979.

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**SECTION 4. LABOR MARKETS**

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The demand for labor remained quite strong in 1979, despite the sluggishness of output growth. Firms experiencing gains in sales added to their payrolls, while those encountering dips in the demand for their products evidently tended to retain their workers—with the negative consequences for productivity and unit labor costs noted in the preceding section. Over the year as whole, the number of workers on the payrolls of nonfarm establishments increased 2.1 million, less than in 1978, but nonetheless a sizable gain.

The major area of greatest strength in hiring was the service sector, where employment rose fairly steadily throughout the year. Manufacturing payrolls, in contrast, declined slightly in the second half of 1979. This weakness was concentrated among durable goods producers, especially in the motor vehicles and steel industries. By the end of the year, about 130,000 auto workers were on indefinite layoff.

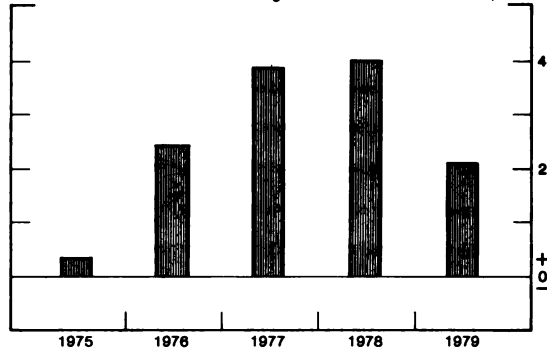
The strength of labor demand in the service sector may help to explain the large increase in the number of women in the labor force last year. Many of the occupational groups in the service sector traditionally have had high proportions of female workers. Adult women have accounted for a large percentage of labor force growth in the past several years, and this pattern continued in 1979, when they accounted for two-thirds of the expansion in both the labor force and total employment.

The overall labor force participation rate grew less rapidly in 1979 so that the smaller increase in employment was still sufficient to hold the unemployment rate almost constant throughout the year, at about 5.8 percent. This is a level that, given the composition of the work force and other

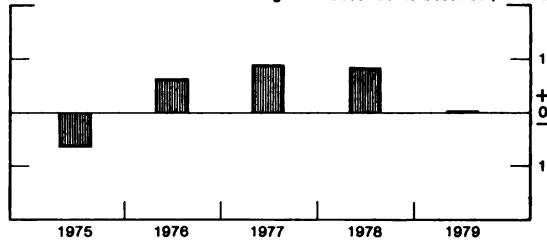
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**Nonfarm Payroll Employment**

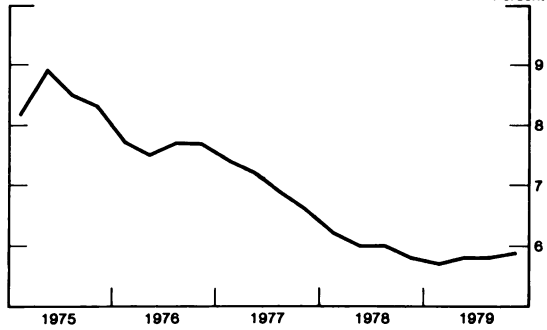
Change from December to December, millions

**Manufacturing Employment**

Change from December to December, millions

**Unemployment Rate**

Percent



-39-

characteristics of the labor market, most analysts agree is today consistent with relatively tight labor supplies. Certainly, the proportion of the population employed remained at an all-time high during 1979, and many employers continued to report difficulty in finding well qualified workers. Some statistical indicators of labor market tautness did, however, begin to move in the direction of greater ease as the year progressed; for example, the share of the labor force on layoff, the unemployment rate for males 25 and over, and the blue collar jobless rate all increased a bit after the first quarter. In January of this year, when the unemployment rate rose from 5.9 to 6.2 percent, the increase largely reflected layoffs of adult male, blue collar workers.

There were no significant changes over the past year in the structure of unemployment. The jobless rates for nonwhites, for teenagers, and for black teenagers have not improved relative to those for other major population groups. This January, the nonwhite unemployment rate was 11-3/4 percent, teenage unemployment was 16-1/4 percent, and black teenage unemployment was 34-1/2 percent. The unemployment rate among nonwhites has remained about twice the level for whites, and teenage unemployment continues to be about three times the rate for adults.



## SECTION 5. DOMESTIC FINANCIAL MARKETS

### Interest Rates

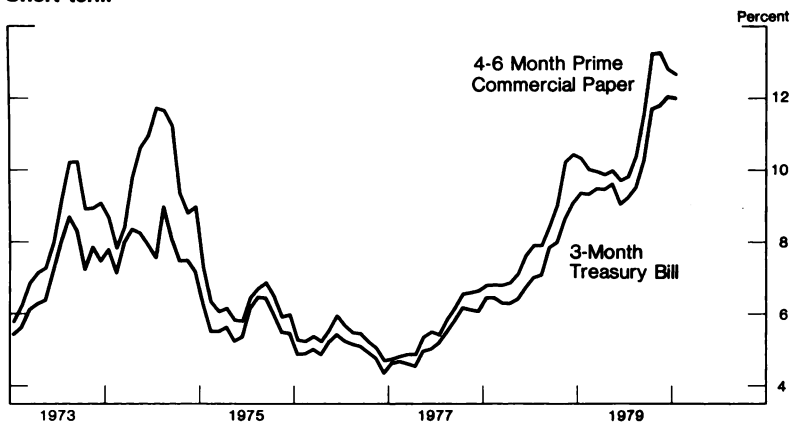
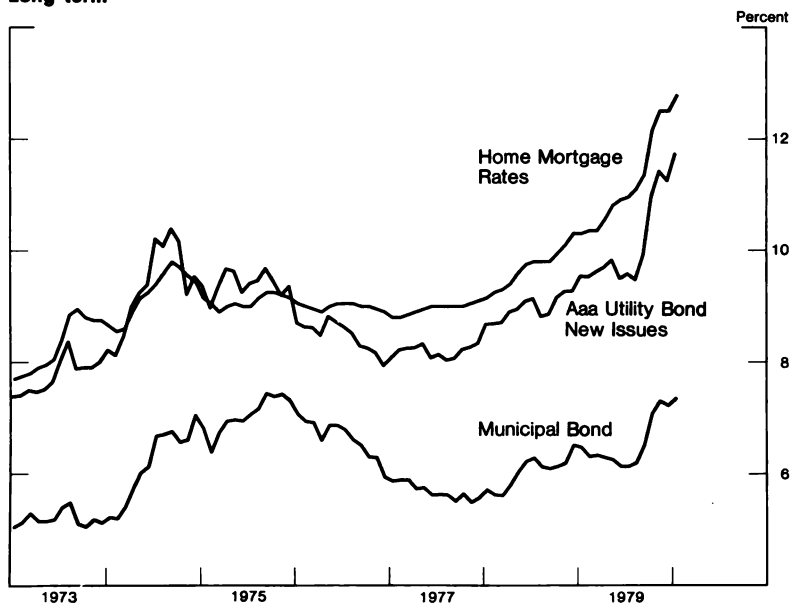
Market rates of interest rose substantially during 1979, surpassing the previous highs recorded in 1974. As in that earlier year, sharply accelerated inflation created strong demands for money and credit, and correspondingly intense upward pressures on interest rates. These pressures were most evident in the second half of the year, when the Federal Reserve had to adopt an increasingly restrictive posture in order to keep the monetary aggregates within the ranges set earlier and reported to the Congress. On October 6, the System took certain actions aimed at providing greater assurance that its monetary objectives would be achieved. A fundamental change was made in the System's operating procedures, shifting the day-to-day focus of open market operations from the federal funds rate to the growth of member bank reserves.<sup>1</sup> At the same time, the discount rate was raised one percentage point, to 12 percent, and an 8 percent marginal reserve requirement was applied to certain managed liabilities of commercial banks.<sup>2</sup>

Over the course of 1979, interest rates on short-dated money market instruments such as Treasury bills, large CDs, and commercial paper generally rose 2-1/2 to 3 percentage points. In long-term debt markets, taxable bond

<sup>1/</sup> Appendix B to this report describes the new operating procedures.

<sup>2/</sup> The marginal reserve requirement applies to increases, above a base level, in the total managed liabilities of member banks, Edge corporations, and U.S. agencies and branches of foreign banks. These liabilities include large time deposits (\$100,000 and over with maturities of less than a year), Eurodollar borrowings, repurchase agreements against U.S. government and agency securities and federal funds borrowings from nonmember institutions. (Federal funds borrowings from member banks, Edges and agencies and branches are exempt to avoid double counting for reserve requirements and a deduction is permitted against RPs for U.S. government and agency securities held in trading accounts.)

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**Interest Rates****Short-term****Long-term**

-42-

yields increased 1-1/2 to 2 percentage points, and interest rates on conventional home mortgage loans increased about 2-1/2 percentage points. Short-term rates have fluctuated around their year-end levels during the past several weeks, but bond yields have risen to new highs, apparently at least partly in reflection of concerns about the consequences of a possible step-up in defense spending on the federal budget and inflation.

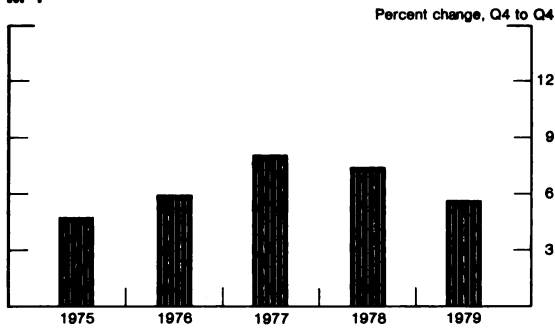
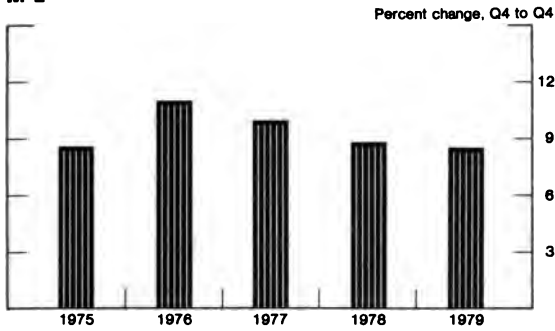
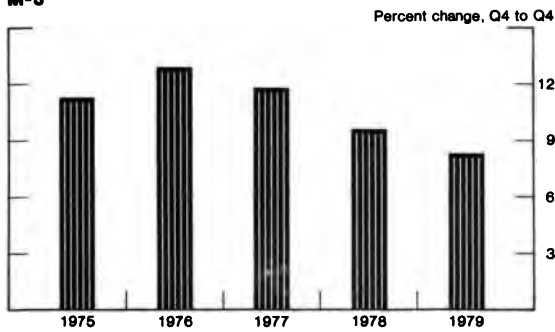
#### Monetary Aggregates<sup>1</sup>

The major monetary aggregates grew more slowly in 1979 than they had in 1978. As may be seen in the chart on page 43, the deceleration was particularly marked in the case of M-1. The Federal Open Market Committee (FOMC) last February established a range of 1-1/2 to 4-1/2 percent for growth of M-1 (currency and demand deposits) in the year ending with the fourth quarter of 1979; this compared with an increase of 7-1/4 percent in the preceding year. As the Board indicated to the Congress in its initial report under the Humphrey-Hawkins Act, it was estimated that growth in M-1 during 1979 might be reduced as much as three percentage points by the shifting of funds from existing demand deposits to newly authorized automatic transfer saving (ATS) accounts across the nation and negotiable-order-of-withdrawal (NOW) accounts in New York State. This meant that the observed growth rate of M-1 might understate by three percentage points its expansion in terms of actual economic impact.

In its midyear report, the Board stated that the FOMC had reaffirmed the 1-1/2 to 4-1/2 percent range, with the understanding that this range would

<sup>1/</sup> The discussion in this section is cast in terms of the former definitions of the monetary aggregates, since those were the basis for decisions during 1979.

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**Money Stock Growth**  
**Former Concepts****M-1****M-2****M-3**

-44-

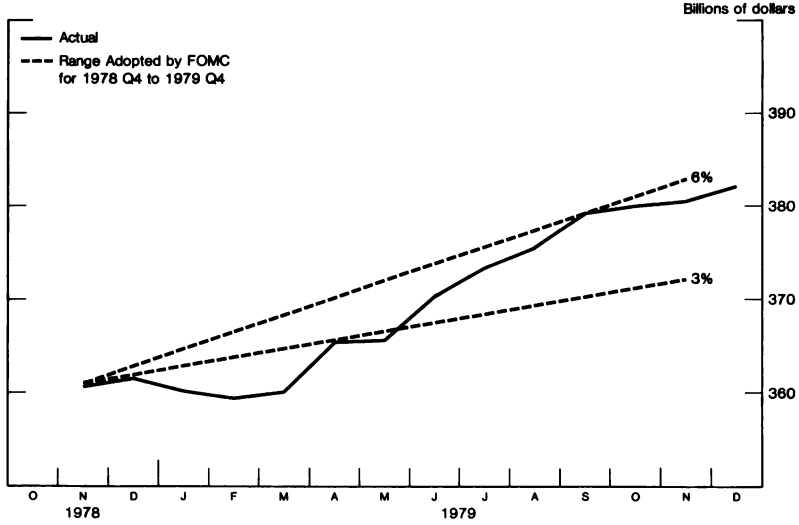
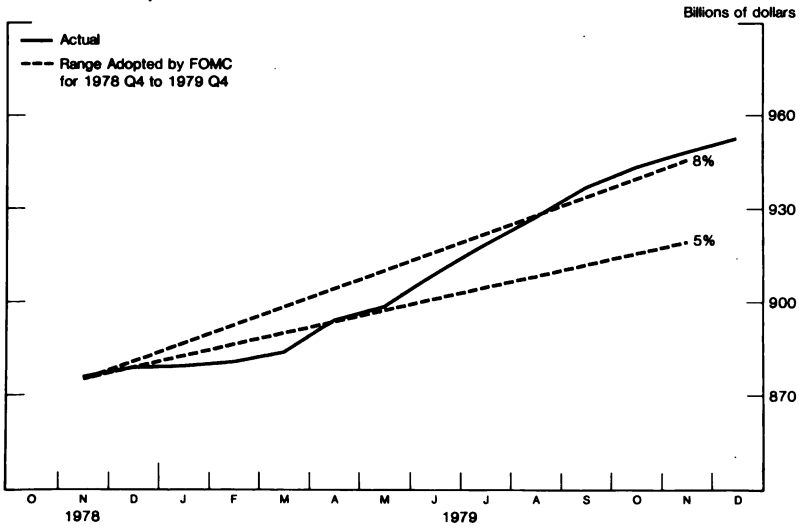
be adjusted upward to the extent that the impact of ATS/NOW account shifts fell short of the original three percentage point estimate. With inflows to ATS and NOW accounts falling off sharply, the FOMC employed an adjusted M-1 range of 3 to 6 percent during the remainder of the year, based on an expected ATS/NOW effect of around 1-1/2 percent.

In the event, M-1 increased 5.5 percent during 1979, and the estimated depressing effect of ATS/NOW accounts amounted to about 1-1/4 percentage points. The aggregate was approaching the upper bound of its range in the late summer, but its growth moderated in the closing months of the year (see chart on page 45). This slower growth has continued into 1980.

M-2, which includes, in addition to M-1, bank time and savings deposits other than large negotiable CDs, increased 8.3 percent between the fourth quarters of 1978 and 1979. This is slightly above the FOMC's range of 5 to 8 percent, established last February and reaffirmed in July. Expansion of the interest-bearing component was strong, as small denomination time deposits grew at a very brisk pace, offsetting a contraction in passbook savings accounts. Six-month money market certificates (MMCs) accounted for all of the growth in small time and savings accounts; inflows were especially strong after March, when the federal regulatory agencies eliminated (for periods when the 6-month Treasury bill rate exceeds 9 percent) the one-quarter percentage point interest differential that had previously given thrift institutions a competitive advantage in the MMC market. The agencies in March also prohibited the compounding of MMC interest. These actions were taken partly to reduce cost pressures on thrift institutions and partly to help moderate the flow of funds to depository institutions so as restrain inflationary pressures.

—45—

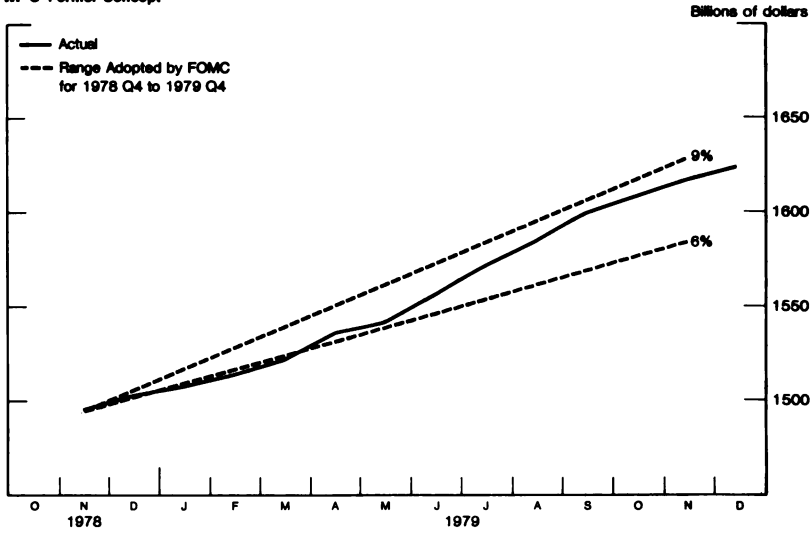
# Growth of Money and Credit In 1979

**M-1 Former Concept**

**M-2 Former Concept**


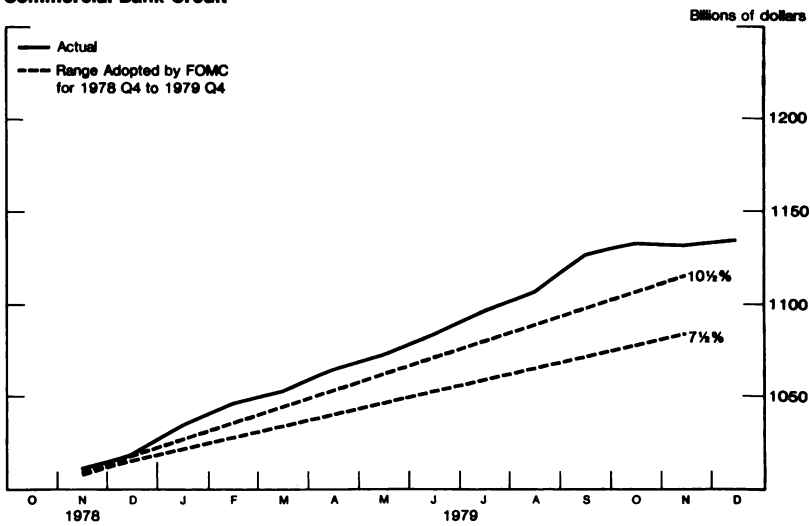
-46-

# Growth of Money and Credit in 1979

M-3 Former Concept



Commercial Bank Credit



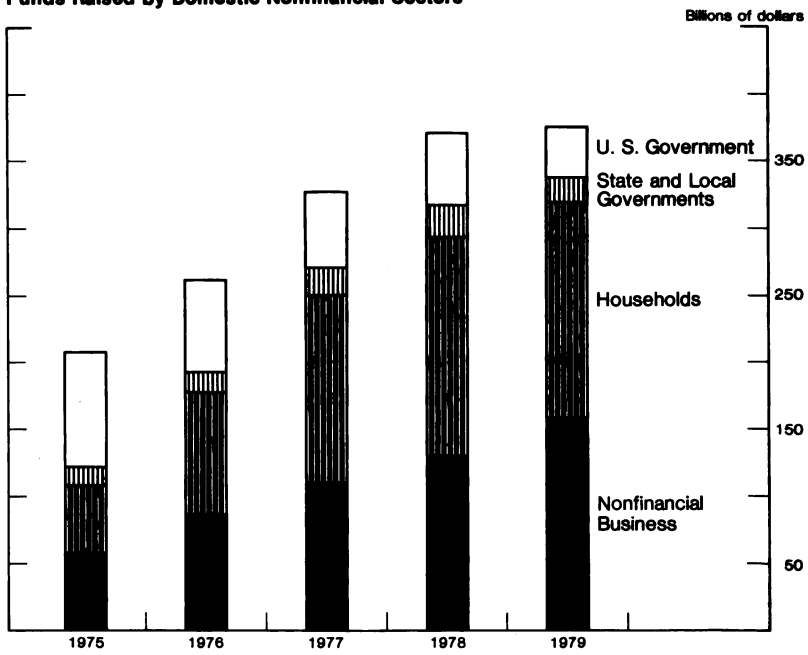
-47-

M-3, which is M-2 plus deposits at thrift institutions, rose 8.1 percent in 1979, within the FOMC's range of 6 to 9 percent. Deposits at savings and loan associations, mutual savings banks, and credit unions expanded 7-3/4 percent, down from about 10-1/2 percent in 1978 but still well above rates recorded in previous periods of high market interest rates. The key to the sustained growth of thrift institution deposits—particularly for S&Ls and MSBs—was the MMC; however, there was also a sizable increase in large denomination time deposits outstanding at S&Ls.

#### Credit Flows

Because market interest rates rose further relative to the returns on fixed interest ceiling time and savings deposits at commercial banks and thrift institutions, a large volume of funds was placed instead in market debt instruments and in mutual funds or investment trusts during 1979. Money market mutual funds registered spectacular growth, their total assets increasing from \$10 billion to \$45 billion. (A record surge since year-end has boosted their total assets above the \$55 billion mark.) However, the depository institutions, confronted with heavy credit demands, were able to obtain the lendable funds they desired through the issuance of ceiling-free liabilities such as large CDs, RPs, federal funds, and Eurodollar borrowings and, in the case of savings and loan associations, through borrowings from Federal Home Loan Banks. Consequently, depository institutions continued to account for a large proportion of credit provided to nonfinancial sectors of the economy, in contrast to the pattern observed at other times when market interest rates have been high. Commercial bank credit increased 12.2 percent over the year ending in the fourth quarter of 1979—as compared with



**Funds Raised by Domestic Nonfinancial Sectors**

-49-

the FOMC's projection of 7-1/2 to 10-1/2 percent—despite a leveling off in the fall.

The total volume of funds raised by domestic nonfinancial sectors of the economy in 1979 was about the same as in 1978. Reduced borrowing by governmental units approximately offset an increase in takings by business firms. Aggregate credit expansion was greatest in the first three quarters of the year, as the tightening of financial markets that accompanied the System's October actions contributed to a steep drop in borrowing by households and businesses in the fourth quarter.

The credit needs of the U.S. Treasury declined markedly in 1979 owing to the reduction in the federal budget deficit. The operating budgets of state and local governments meanwhile moved in the opposite direction, from surplus to deficit, but their net borrowing, too, diminished. Although the tax-exempt market was used much more extensively as a source of funds for residential mortgage finance, restrictive IRS regulations brought a virtual cessation of the advance refunding activity that had swelled state and local government bond issuance in the previous year.

The strong demand for housing, both as shelter and as an investment, and an evident desire to maintain past spending levels in the face of declining real disposable income kept borrowing by the household sector at an historically high level during 1979. Over the first three quarters, debt expansion exceeded income growth, and loan repayments as a percent of disposable income moved to a new high. By the latter part of 1979, signs had begun to emerge—in data on loan delinquencies and bankruptcies—that families were encountering some difficulty in meeting their financial obligations.

-50-

The heavy debt burdens may have combined with the higher level of interest rates to damp household credit use in the fourth quarter. In addition, however, credit availability became a significant factor as institutions tightened credit standards or curtailed lending in response to greater uncertainty about financial prospects and reduced earnings margins. Credit supplies were most severely constrained in those parts of the country with low usury ceilings; the year-end federal legislation providing a three month override of state usury ceilings may provide some relief for borrowers in such areas.

Borrowing by nonfinancial business firms increased substantially in 1979, as the growth of outlays for inventories and fixed capital outstripped the advance in internal funds generated. This "financing gap" was particularly large during the first three quarters of the year; in the fourth quarter the gap narrowed somewhat with the slowing of inventory accumulation.

Increases in business loans at banks and in net issuance of commercial paper accounted for most of the growth in borrowing by nonfinancial enterprises. Mortgage loans rose somewhat, reflecting the strength of commercial construction, but corporate bond issuance remained around the moderate 1978 level as companies were reluctant to incur long-term debts at historically high interest rates. The relatively heavy reliance on shorter-term borrowings was reflected in a further deterioration of traditional measures of balance sheet strength. Flow-of-funds account estimates for nonfinancial corporations indicate that their aggregate ratio of short-term debt to total debt has reached a record high and that the ratio of liquid assets to current liabilities has reached a low level seen before only in 1974. Perhaps partly for this reason, the drop-off in business borrowing in the fourth quarter was concentrated in the short-term area.

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**SECTION 6. FOREIGN EXCHANGE MARKETS AND THE DOLLAR**

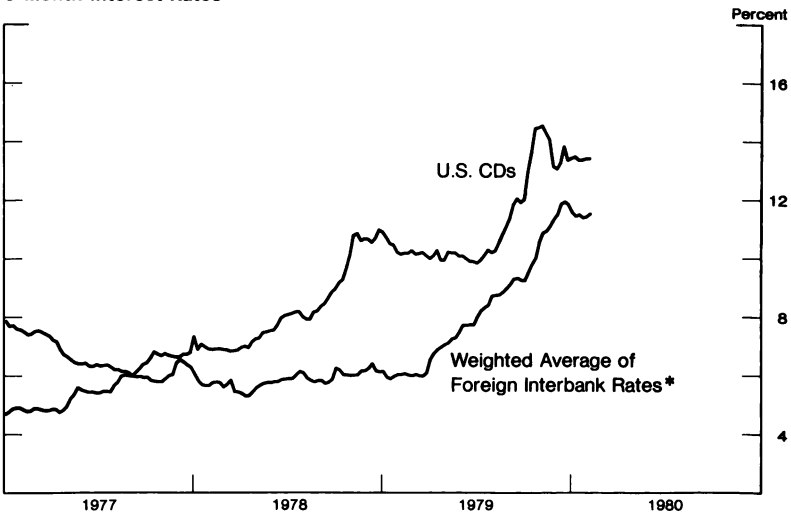
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The dollar was quite strong on foreign exchange markets in the first five months of 1979, following the tightening of U.S. money market conditions and the announcement by the Treasury and the Federal Reserve of a dollar support program on November 1, 1978. The dollar rose more than 5 percent on a trade-weighted average basis, gaining 5-1/2 percent against the mark, 7-1/2 percent against the Swiss franc, and 14-1/2 percent against the yen between the end of December and the end of May. During this period, U.S. and foreign monetary authorities entered the markets to moderate exchange rate movements, reversing in the process a large portion of their 1978 intervention purchases of dollars. By the end of May the Federal Reserve had repaid all its outstanding swap debts to other central banks, the Treasury had reconstituted all of the balances it had raised through the issuance of foreign-currency denominated notes, and the Federal Reserve and the Treasury both completed repayment of their pre-1971 Swiss franc indebtedness.

In early summer, however, the dollar weakened, apparently mainly in response to the failure of U.S. inflation to moderate and to the absence of a concerted U.S. program to solve its energy problem. The dollar's weakness intensified in early June and continued into September, despite a series of increases in the Federal Reserve's discount rate, a gradual rise in the federal funds rate, and renewed heavy exchange market intervention in support of the dollar.

By early October the dollar had retraced all of its rebound of earlier in the year, and selling pressures were mounting rapidly amidst accelerating price rises in gold and other commodities and other signs of a

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**Weighted Average Exchange Value of U. S. Dollar \*****3-Month Interest Rates**

\* Weighted average against or of G-10 countries plus Switzerland using total 1972-76 average trade of these countries.

-53-

worsening in expectations of inflation. In these circumstances, the Federal Reserve's announcement on October 6 of a series of anti-inflation measures--described in the preceding section--was accompanied by a sharp advance of the dollar on exchange markets. By mid-November, the dollar had risen about 4 percent on a weighted-average basis from its early October lows. Foreign monetary authorities subsequently tightened their policies to deal with similar inflationary pressures abroad, and the dollar lost strength. From mid-November through the end of the year the dollar drifted lower in thin markets unsettled by developments associated with the taking of American hostages in Iran. At year-end, the dollar stood close to its early October lows on a weighted-average basis. The dollar has been relatively stable in recent weeks, with trading rather light in an environment of heightened international political uncertainties.

## APPENDIX A

## DESCRIPTION OF THE NEWLY DEFINED MONETARY AGGREGATES

## THE REDEFINED MONETARY AGGREGATES

## I. Background

The Federal Reserve has redefined the monetary aggregates. This action was prompted by the many financial developments that have altered the meaning and reduced the significance of the old measures. Some of these developments have been associated with the emergence in recent years of new monetary assets--for example, NOW accounts and money market mutual fund shares--while others have altered the basic character of standard monetary assets--for example, the growing similarity of and the growing substitution between the deposits of thrift institutions and those of commercial banks.<sup>1/</sup> In the process of redefinition a set of Board staff proposals was published in January 1979.<sup>2/</sup> Comments on these proposals received from the public and from invited experts, together with deliberations within the Federal Reserve System and further research by Federal Reserve staff, contributed to the Board's selection of the newly defined measures.

Given the changes that have occurred in financial practices in recent years, the new measures should aid both the Federal Reserve and the public in interpreting monetary developments. However, many of the changes in the payments mechanism and in the character of financial assets that have rendered such a redefinition necessary--some of which are ongoing--have also added significantly to the complexity of the monetary system. As

1/ A discussion of many of these developments can be found in, "A Proposal for Redefining the Monetary Aggregates," Federal Reserve Bulletin (January 1979) pp. 14-17.

2/ See "A Proposal," pp. 13-42. The potential need for redefinition, in light of numerous financial innovations, was recognized by the Advisory Committee on Monetary Statistics. See Improving the Monetary Aggregates: Report of the Advisory Committee on Monetary Statistics (Board of Governors of the Federal Reserve System, June 1976), pp. 5-6, 9-12.

## A-2

a consequence, it is recognized that no one set of monetary aggregates can satisfy every purpose or every user. For this reason, the principal components of the new measures--along with several related series--will be published regularly with the new aggregates. In this way, users will be able to analyze separately the components and to construct alternative measures.

The following section, Section II, presents the new aggregates and compares them to the old measures. This is followed in Section III by a discussion of the rationale underlying the redefinition. The historical behavior of the new aggregates is examined in Section IV. A final section, Section V, discusses some technical issues associated with the redefined measures: consolidation and seasonal adjustment procedures used in constructing the redefined aggregates and new data sources used in the redefinition. Three appendix tables contain annual and quarterly rates of growth of the new measures and their old counterparts.

## II. The New Monetary Aggregates

Four newly defined monetary aggregates replace the old M-1 through M-5 measures. In addition, a broad measure of liquid assets has been adopted. The new aggregates are presented in Table 1. Two narrow transactions measures--M-1A and M-1B--have been adopted. M-1A is basically the same as the old M-1 aggregate, except that it excludes demand deposits held by foreign commercial banks and official institutions.<sup>1/</sup> The other narrow measure--M-1B--adds to M-1A interest-earning checkable deposits at all depository institutions--namely negotiable order of withdrawal (NOW)

<sup>1/</sup> The removal of demand deposits due to foreign commercial banks and official institutions follows a recommendation of the Advisory Committee on Monetary Statistics. See Improving the Monetary Aggregates: Report, pp. 15-19.



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Table 1

## New Measures of Money and Liquid Assets

Aggregate	Component	Amount in billions of dollars (not seasonally adjusted; November 1979)
<u>M-1A</u>	Currency Demand deposits <sup>1/</sup>	372.2 106.6 265.6
<u>M-1B</u>	M-1A Other checkable deposits <sup>2/</sup>	387.9 372.2 15.7
<u>M-2</u>	M-1B Overnight RPs issued by commercial banks Overnight Eurodollar deposits held by U.S. nonbank residents at Caribbean branches of U.S. banks Money market mutual fund shares Savings deposits at all depository institutions Small time deposits at all depository institutions <sup>3/</sup> M-2 consolidation component <sup>4/</sup>	1510.0 387.9 20.3 3.2 40.4 420.0 640.8 -2.7
<u>M-3</u>	M-2 Large time deposits at all depository institutions <sup>5/</sup> Term RPs issued by commercial banks Term RPs issued by savings and loan associations	1759.1 1510.0 219.5 21.5 8.2
<u>L</u>	M-3 Other Eurodollars of U.S. residents other than banks Bankers acceptances Commercial paper Savings bonds Liquid Treasury obligations	2123.8 1759.1 34.5 27.6 97.1 80.0 125.4

Note: Components of M-2, M-3 and L measures generally exclude amounts held by domestic depository institutions, foreign commercial banks and official institutions, the U.S. Government (including the Federal Reserve), and money market mutual funds. Exceptions are bankers acceptances and commercial paper for which data sources permit the removal only of amounts held by money market mutual funds and, in the case of bankers acceptances, amounts held by accepting banks, the Federal Reserve, and the Federal Home Loan Bank System.

<sup>1/</sup> Net of demand deposits due to foreign commercial banks and official institutions.

<sup>2/</sup> Includes NOW, ATS and credit union share draft balances and demand deposits at thrift institutions.

<sup>3/</sup> Time deposits issued in denominations of less than \$100,000.

<sup>4/</sup> In order to avoid double counting of some deposits in M-2, those demand deposits owned by thrift institutions (a component of M-1B) which are estimated to be used for servicing their savings and small time deposit liabilities in M-2 are removed.

<sup>5/</sup> Time deposits issued in denominations of \$100,000 or more.

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accounts, automatic transfer from savings (ATS) accounts, and credit union share draft balances—as well as a small amount of demand deposits at thrift institutions that cannot, using present data sources, be separated from interest-earning checkable deposits.<sup>1/</sup> The new M-2 measure adds to M-1B overnight repurchase agreements (RPs) issued by commercial banks and certain overnight Eurodollars held by U.S. nonbank residents,<sup>2/</sup> money market mutual fund shares, and savings and small-denomination time deposits at all depository institutions.<sup>3/</sup> Also, in order to avoid double counting of some deposits in this aggregate, the construction of the new M-2 involves subtracting a consolidation component—an estimate of those demand deposits thrift institutions use in servicing their savings and time deposit liabilities included in this aggregate.<sup>4/</sup> Redefined M-3 is equal to new M-2 plus large-denomination time deposits at all depository institutions (including negotiable CDs) plus term RPs issued by commercial banks and savings and loan

<sup>1/</sup> M-1B is the same as the M-1 measure that was proposed by the Board staff in January 1979. See "A Proposal," pp. 17-20.

<sup>2/</sup> Overnight Eurodollars in M-2 are those issued by Caribbean branches of member banks. Other overnight Eurodollars and longer-term Eurodollars of U.S. residents are included in the broad measure of liquid assets, L. Data on overnight Eurodollars included in M-2 are available on a timely basis, but data on other Eurodollars—at both U.S. and non-U.S. banks abroad—are available only with a lengthy lag and do not permit a separation of overnight from term Eurodollars. As improved data sources become available, adjustments may be made to the new measures. For example, the possible inclusion of Eurodollars held by nonresidents other than banks and official institutions could be reviewed. Moreover, with Eurodollar data on a more timely basis, consideration could be given to including Eurodollars of longer than overnight maturities in a broader monetary aggregate, rather than only in L.

<sup>3/</sup> Small-denomination time deposits are those issued in denominations of less than \$100,000. Depository institutions are commercial banks (including U.S. agencies and branches of foreign banks, Edge Act Corporations, and foreign investment companies), mutual savings banks, savings and loan associations, and credit unions.

<sup>4/</sup> At present, because of the small amount of checkable deposits at thrifts, this M-2 consolidation adjustment removes all demand deposit holdings of mutual savings banks and savings and loan associations. See Section IV for a further discussion of consolidation procedures.

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associations.<sup>1/</sup> Finally, the very broad measure of liquid assets—L—equals new M-3 plus other liquid assets consisting of other Eurodollar holdings of U.S. nonbank residents,<sup>2/</sup> bankers acceptances, commercial paper, savings bonds, and marketable liquid Treasury obligations.<sup>3/</sup>

The relationship between the redefined and the old monetary aggregates is shown in Table 2. As already noted, the new M-1A measure is very similar to the old M-1 and differs in excluding demand deposits owned by foreign commercial banks and official institutions.<sup>4/</sup> M-1B thus differs from the old M-1 by excluding these deposits, on the one hand, and, on the other, by including other checkable deposits at both commercial banks and thrift institutions. New M-2 is closer in concept to old M-3, which included savings and time deposits liabilities at all depository institutions (other than negotiable CDs at large commercial banks), than it is to old M-2, which excluded the public's holdings of savings and time deposits at thrift institutions. The major differences between the new M-2 and old M-3 measures are that new M-2 includes money market mutual fund shares and overnight RPs and Eurodollars--none of which appeared in any of the old monetary aggregates--and that it excludes all large-denomination time deposits. The only large-denomination time deposits removed from the old M-3 (and the old M-2) measure were negotiable CDs at large commercial banks--amounting to \$95.9 billion in November 1979--while, as the table shows, it contained \$151.2 billion of other large-denomination time deposits at both commercial banks and thrift institutions. By including all large-denomination time deposits at all depository institutions, the new M-3 is closer in concept to the old

<sup>1/</sup> Large-denomination time deposits are those issued in denominations of \$100,000 or more.

<sup>2/</sup> See footnote 2 page 4.

<sup>3/</sup> In general, the components of M-2, M-3, and L exclude amounts held by depository institutions, money market mutual funds, the Federal government (including the Federal Reserve) and foreign commercial banks and official institutions. Marketable liquid Treasury obligations are those with remaining maturities of 18 months or less.

<sup>4/</sup> The new M-1A also includes a very small amount of M-1-type balances at certain U.S. banking offices of foreign banks outside New York City, which are not in the old M-1.

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Table 2

## Relationship Between New and Old Monetary Aggregates

<u>Aggregate and Component</u>	<u>Amount in billions of dollars (not seasonally adjusted) November 1979</u>
<u>Old M-1</u>	382.6
Less demand deposits of foreign commercial banks and official institutions	10.4
<u>Equals: New M-1A<sup>1/</sup></u>	372.2
Plus other checkable deposits	15.7
<u>Equals: New M-1B</u>	387.9
 <u>Old M-2</u>	 945.3
Plus savings and time deposits at thrift institutions	664.2
<u>Equals: Old M-3</u>	1609.5
Plus overnight RPs and Eurodollars	23.4
Plus money market mutual fund shares	40.4
Plus demand deposits at mutual savings banks <sup>2/</sup>	1.0
Less large time deposits at all depository institutions in current M-3	151.2
Less demand deposits of foreign commercial banks and official institutions	10.4
Less consolidation component <sup>3/</sup>	2.7
<u>Equals: New M-2</u>	1510.0
Plus large time deposits at all depository institutions	219.5
Plus term RPs at commercial banks and savings and loan institutions	29.8
<u>Equals: New M-3</u>	1759.1
 <u>Memo:</u>	
<u>Old M-2</u>	945.3
Plus negotiable CDs at large commercial banks	95.9
<u>Equals: Old M-4</u>	1041.2
<u>Old M-3</u>	1609.5
Plus negotiable CDs at large commercial banks	95.9
<u>Equals: Old M-5</u>	1705.4

<sup>1/</sup> Also includes a very small amount of M-1-type balances at certain U.S. banking offices of foreign banks outside New York City which were not in the old M-1 measure.

<sup>2/</sup> Demand deposits at mutual savings banks were not included in any of the old monetary aggregates.

<sup>3/</sup> Consists of an estimate of demand deposits included in M-1B that are held by thrift institutions for use in servicing their savings and small time deposits liabilities included in the new M-2.

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M-5 measure than to the old M-4 (both shown as memo items on Table 2). Of course, the new M-3 aggregate is more inclusive than the old M-5, since it contains RPs, certain overnight Eurodollar deposits, and money market mutual fund shares.

Some of the new aggregates and their components will continue to be published on a weekly basis while others will be available only monthly. The publication schedule calls for publication of weekly and monthly data on the new M-1A and M-1B measures.<sup>1/</sup> Data on redefined M-2 and M-3 will be available only on a monthly basis, on a schedule similar to that of old M-3.<sup>2/</sup> In addition, data on the domestic commercial bank components of the new measures, together with currency, money market mutual fund shares, and overnight Eurodollars, will be published on a weekly basis, while the other components will be available only on a monthly basis.

### III. Underlying Rationale

The organizing principle underlying the redefined monetary aggregates is that of combining similar kinds of monetary assets at each level of aggregation. This principle has the largest impact on the new M-1B, M-2, and M-3 measures. Thus M-1B combines checkable deposits at thrift institutions--NOW deposits, credit union share draft balances, and demand deposits at mutual savings banks--with demand, NOW, and ATS balances at

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- <sup>1/</sup> The Federal Reserve intends to publish M-1A and M-1B on Fridays (except occasionally when holiday periods are involved), for the statement week ending nine days earlier.
  - <sup>2/</sup> Monthly data on the new M-2 and M-3 measures normally will be published about 10 to 15 days following the end of the month. Because of lengthier delays associated with some of the other components of L, this aggregate will be published about 6 to 8 weeks following the end of each month.

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commercial banks.<sup>1/</sup> Ordinary savings and small-denomination time deposits at commercial banks and thrift institutions are included in the new M-2. Moreover, money market mutual fund shares, whose liquidity characteristics are most like those of savings accounts, are also included in this measure, as are overnight RPs and Eurodollars. M-3 includes large-denomination time deposits at both commercial banks and thrift institutions, as well as term RPs.<sup>2/</sup>

Two M-1 measures were adopted primarily because of uncertainties that would arise during a transition period should legislation be enacted that permits NOW accounts to be offered nationwide. NOW accounts have properties of both a transactions-type account and a savings-type account, and thus newly opened NOW accounts would tend to attract funds both from household demand deposits and from savings accounts and other liquid assets.<sup>3/</sup> Evidence based on the NOW account experience in New England and New York State clearly indicates that during the transition period, when the bulk of NOW accounts was opened, growth in total NOW balances was buoyed by shifts from savings balances and other liquid assets. This suggests that during a

<sup>1/</sup> The Federal Reserve intends to include the volume of travelers checks of non-bank issuers at the M-1 level at some future time, once all major issuers begin submitting such data regularly to the Federal Reserve and once these data have been thoroughly reviewed. Travelers checks likely will be added to the new aggregates in conjunction with a benchmark or annual revision.

<sup>2/</sup> Available evidence indicates that savings and loan associations are the only thrift institutions with a significant amount of RP liabilities outstanding. Moreover, nearly all of the savings and loan RPs are believed to be of the term variety.

<sup>3/</sup> Turnover data on NOW accounts corroborate this point. The turnover rate of NOW accounts at both commercial banks and thrift institutions is approximately 10 per year; for comparison, the turnover rate for ordinary savings accounts is about 3 per year and that of consumer demand deposit accounts is estimated to be about 35 per year.

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conversion period associated with nationwide NOW accounts, growth in M-1B could significantly overstate underlying growth in the public's transactions balances.<sup>1/</sup> M-1A, by contrast, would tend to understate such growth, as households converted demand deposit balances into NOW accounts. In practice, since the extent of shifting from demand deposits or other accounts to NOW accounts is uncertain, the availability of both M-1 measures is expected to help in the interpretation of narrow money stock growth during the transition period, should NOW accounts be offered nationwide.

Some other financial assets have been recommended for inclusion at the M-1 level, but for several reasons were not added in the new M-1A or M-1B measures. The most common recommendations have involved shares in money market mutual funds, RPs, and certain Eurodollars owned by U.S. residents. Each of these assets has transactions-related characteristics. Many money market mutual funds offer their customers check-writing privileges—subject to a minimum amount per check which has typically been \$500—while balances placed in overnight RPs and in certain overnight Eurodollars are available for spending the next business day.<sup>2/</sup>

<sup>1/</sup> The problem of seasonal adjustment would also be magnified by nationwide NOW accounts the currency and demand deposit components of M-1A can be seasonally adjusted using historical data but historical data on NOW accounts and these other checkable balances appearing in M-1B are not yet sufficient for reliable seasonal adjustment. Conversions from demand deposit accounts to NOW accounts could also influence the seasonal behavior of the demand deposit component of M-1A, should the funds shifted from demand accounts and those remaining have different characteristics.

<sup>2/</sup> Only Eurodollars settled in same-day or immediately available funds meet this condition. By contrast, an overnight Eurodollar deposit arranged in clearing house funds is not available for spending for two business days. Because of time zone considerations and other conveniences, it is believed that the bulk of overnight Eurodollars arranged in immediately available funds is at Caribbean branches.

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However, these instruments also have attractive characteristics as liquid investments and their behavior in many portfolios appears to be influenced by such considerations. Evidence on turnover rates indicates that balances in money market funds turn over much like balances in ordinary savings accounts--about three times per year--and thus on the average are not being actively used for transactions purposes.<sup>1/</sup> Professional opinion currently is divided over whether RPs are mainly liquid investments or transaction-type balances. Some observers hold that RPs are very similar to demand deposits and that the unexpected weakness that has emerged in the public's demand for M-1-type measures at times since the mid-1970s can be traced largely to the behavior of RPs. Others stress that in practice RPs are qualitatively different from demand deposits--that they are more like other short-term investments--and that recent weakness in the public's demand for the narrow money stock was not mirrored in any single liquid asset, including RPs.<sup>2/</sup>

<sup>1/</sup> Furthermore, empirical research by the staff indicates that the addition of money market mutual fund shares to M-1B has not on balance enhanced the performance of this aggregate since mid-1974.

<sup>2/</sup> For those studies emphasizing the transactions properties of RPs, see Peter A. Tinsley, Bonnie Garrett, and Monica Friar "The Measurement of Money Demand," (Board of Governors of the Federal Reserve System, Division of Research and Statistics Special Studies Section, November 1978 processed); Gillian Garcia and Simon Pak, "Some Clues in the Case of the Missing Money," *American Economic Review*, 69 (May 1979) pp 330-34; and John Wenninger and Charles Sivesind, "Changing the M-1 Definition: An Empirical Investigation" (Federal Reserve Bank of New York, April 1979; processed). An alternative interpretation can be found in Richard D. Porter, Thomas D. Simpson, and Eileen Mauskopf, "Financial Innovation and the Monetary Aggregates: Brookings Papers on Economic Activity 1 1979 pp 213-29. Richard D. Porter and Eileen Mauskopf, "Cash Management and the Recent Shift in the Demand for Demand Deposits" (Board of Governors of the Federal Reserve System, Division of Research and Statistics, Econometric and Computer Applications Section, November 1978 processed) and Thomas D. Simpson, "The Market for Federal Funds and Repurchase Agreements" Staff Studies 106 (Board of Governors of the Federal Reserve System, July 1979), pp 43-58. A summary and evaluation of some research on this subject can be found in John H. Kalchbrenner "Recent Innovations in Financial Markets and Their Relationship to Money Demand," paper presented at the XI Meeting of Technicians of Central Banks of the American Continent, Port-of-Spain, Trinidad November 19-24, 1978 (Board of Governors of the Federal Reserve System, November 1978; processed).



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Nevertheless, in recognition of the increasingly prominent role played by these assets and their potential transactions-related features, data on overnight RPs and Eurodollars and money market mutual fund shares will be conveniently shown in conjunction with figures for M-1A and M-1B on the first page of the weekly money stock release containing the money stock measures. Also, these items will be included in the new M-2 measure, as noted above.

In addition to money market mutual funds and overnight RPs and Eurodollars, savings and small-denomination time deposits are included at the M-2 level. Savings deposits and small-denomination time deposits have different liquidity characteristics.<sup>1/</sup> Nevertheless, recent innovations—most importantly the six-month money market certificate and more recently the two-and-one-half year variable-ceiling certificate—have substantially added to the availability of attractive alternatives to holding savings balances, and have led to shifts from savings to these new time deposits at all depository institutions. In addition, the six-month money market certificate has tended to reverse a trend toward longer maturities of small-denomination time deposits and thus to increase the overall liquidity of such deposits.

The share of small-denomination time deposits at commercial banks has been affected by regulatory changes applying to the ceiling rates that commercial banks have been able to offer on certain time accounts relative to

<sup>1/</sup> Customers can normally withdraw funds from ordinary savings accounts when they wish, often by telephone, although depository institutions have the right to require a 30-day notification prior to withdrawal. Time deposits, by contrast, are subject to a substantial penalty for withdrawal prior to maturity.

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ceilings applicable to thrift institutions.<sup>1/</sup> As a consequence, the historical relationship between the public's demand for small-denomination time deposits at commercial banks and at thrift institutions has been altered in ways that cannot be fully determined at this time. Because small-denomination time deposits at both commercial banks and thrift institutions are combined in the M-2 aggregate, along with the savings deposit liabilities of both, shifts of these kinds affect only the composition of M-2 and not its size or rate of growth. Similarly, the growing availability of money market mutual fund shares has tended to reduce the public's demand for savings and small-denomination time deposits at commercial banks and thrift institutions, but such shifts are captured within the new M-2 aggregate, inasmuch as it includes money market mutual fund shares.<sup>2/</sup> Furthermore, growth in new M-2 likely would not be affected much by conversions to NOW accounts, should they become available nationwide, because funds absorbed by these accounts would be drawn mainly from other kinds of accounts included in this aggregate.

- 
- / Thrift institution shares of small-denomination time deposits were augmented following the introduction of the six-month certificate by a regulatory ceiling that permitted them to offer the auction rate on six-month Treasury bills; by comparison, the ceiling rate on these deposits at commercial banks was 25 basis points below the auction rate. However, in March 1979 the differential on money market certificate ceiling rates was removed--for auction rates on six-month bills in excess of 9 percent--and the commercial bank share of these deposits subsequently tended to expand.
  - / Empirical analyses by the staff indicate that the behavior of new M-2 in recent years has generally not departed far from what would be expected on the basis of longer-term historical relationships, in contrast to old M-2 and some other measures of money. See David J. Bennett, Flint Brayton, Eileen Mauskopf, Edward K. Offenbacher and Richard D. Porter, "Econometric Properties of the Redefined Monetary Aggregates" (Board of Governors of the Federal Reserve System, Division of Research and Statistics, Econometric and Computer Applications Section, February 1980; processed).

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By including large-denomination time deposits, the new M-3 is most comparable to the old M-5 measure. The new M-3 aggregate also includes term RPs which have some similarities to large time deposits. The new M-3 definition is based on the view that large-denomination time deposits and term RPs substitute for each other in many portfolios and that these items, especially negotiable CDs, are relatively liquid.

The liquid assets, or L, measure adds to M-3 other liquid assets held by the public. Some of these are liabilities of depository institutions—term Eurodollars held by U.S. nonbank residents and bankers acceptances—while others are obligations of the U.S. Treasury—savings bonds and liquid marketable debt.<sup>1/</sup> The commercial paper component consists of obligations of a variety of issuers, both financial institutions and nonfinancial corporations. Some observers note such a broad measure of liquid assets is especially meaningful because many financial innovations in recent years have altered the public's demands for narrower measures. They argue that these kinds of shifts are absorbed in a very broad aggregate, such as L, because reductions in demands for narrower measures of money are mirrored in increases in the demands for other components of the broadest measure, leaving demand for the total unaffected. Others who focus on the volume of credit view such an aggregate as better reflecting the amount of credit extended to the economy, both through the commercial banking system and through other channels.

<sup>1/</sup> Eurodollar deposits of U.S. nonbank residents other than those overnight Eurodollars that are already incorporated at the M-2 level might appropriately be included in the new M-3 measure since they share many characteristics with domestically issued, large-denomination time deposits. However, lags on obtaining data on such Eurodollars are much longer than for the other components of this aggregate, and staff work suggests that estimations of this component based on information that might be available on an earlier schedule would be subject to large revisions.

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## 7. Historical Behavior of the New Aggregates

An examination of the growth rates and velocities of the new measures affords a better understanding of their behavior and their relationship to the old measures.<sup>1/</sup> Chart 1 shows growth rates of M-1A and M-1B in the upper panel, and old M-1 in the lower panel.<sup>2/</sup> All three narrow measures have generally moved closely together. In recent years, though, M-1B has tended to increase more rapidly than either M-1A or old M-1, because of growth of NOW and ATS accounts. During 1979, for example, with shifts in monetary asset holdings in response to the availability of new deposit services, M-1B expanded at a rate that was 2-1/2 percentage points faster than M-1A and old M-1; this difference reflected conversions to NOW accounts in New York State and to ATS accounts nationwide.<sup>3/</sup> Average rates of growth of these measures over two long time periods and several cycles are shown in Table 3. The growth rates for all three have been very similar, both on a trend and a cyclical basis, except in the most recent expansion when, because of adjustment by the public to new deposit services, average annual growth in M-1B exceeded growth in M-1A and old M-1 by slightly more than 3/4 percentage points. Should NOW account powers be extended to depository institutions nationwide, a more substantial differential in rates of growth between M-1A and M-1B could persist for some time.

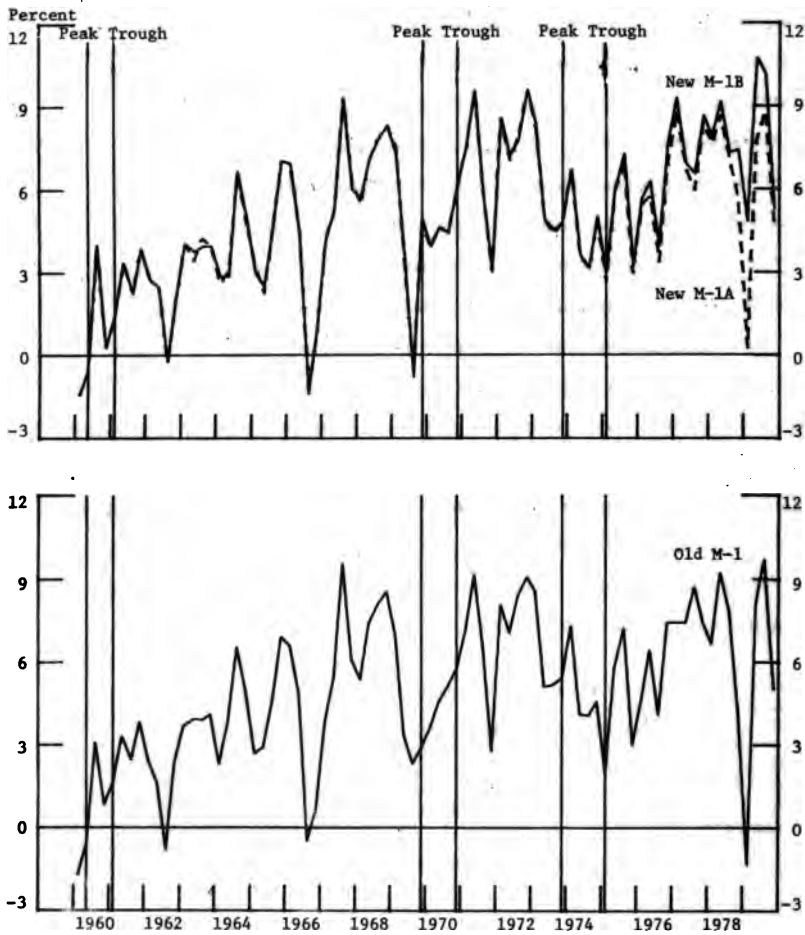
For econometric evidence on the new aggregates, see Bennett and others, "Econometric Properties."

Appendix Table 1 contains growth rates for these aggregates annually over the 1960 to 1979 period and quarterly for the years 1973 to 1979. A portion of this differential in growth rates can be attributed to conversions from demand deposit accounts to ATS and NOW accounts, and the remainder represents shifts from ordinary savings accounts and other liquid assets.

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Chart 1

Rates of Growth of New and Old M-1 Measures  
(Quarterly, seasonally adjusted at annual rates)



Note: Peaks and troughs as designated by the National Bureau of Economic Research.

TABLE 3

Trend and Cyclical Behavior of Growth Rates of New and Old Measures of Money  
Average annual rates of growth in percent

Period	New		Old		New		Old		New		Old		New		Old	
	M-1A	M-1B	M-1	M-1	M-2	M-2	M-2	M-2	M-3	M-3	M-3	M-3	M-4	M-4	M-5	M-5
1960-1979	4.9	5.1	4.9	4.9	8.3	7.6	8.5	8.5	9.0	8.1	8.8	8.8				
1960-1969	3.7	3.8	3.8	3.8	6.9	6.2	7.0	7.0	7.2	6.5	7.2	7.2				
1970-1979	6.0	6.4	6.1	6.1	9.6	8.9	9.9	9.9	10.8	9.6	10.3	10.3				
<u>Peak to trough<sup>1/</sup></u>																
1960:2-1961:1	1.9	1.9	1.9	1.9	6.5	5.6	7.1	7.1	7.0	5.7	7.2	7.2				
1969:4-1970:4	4.8	4.8	4.8	4.8	5.7	7.1	7.2	7.2	8.7	9.8	8.9	8.9				
1973:4-1975:1	4.2	4.3	4.4	4.4	6.2	7.3	7.3	7.3	8.2	9.7	8.8	8.8				
<u>Trough to peak<sup>2/</sup></u>																
1961:1-1969:4	4.2	4.2	4.2	4.2	7.2	6.7	7.3	7.3	7.5	7.0	7.5	7.5				
1970:4-1973:4	6.8	6.8	6.9	6.9	10.8	10.1	11.4	11.4	12.9	11.8	12.5	12.5				
1975:1-1979:4 <sup>3/</sup>	6.2	7.1	6.3	6.3	10.6	9.1	10.3	10.3	10.6	8.1	9.7	9.7				

<sup>1/</sup> Averages of annualized quarter-to-quarter rates of growth. The base quarter for each calculation is the quarter following the peak (peak is first quarter shown).

<sup>2/</sup> Averages of annualized quarter-to-quarter rates of growth. The base quarter for each calculation is the quarter following the trough (trough is first quarter shown).

<sup>3/</sup> Data for 1979:4 are most recent quarterly data available, and this quarter may not be a cyclical peak.

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The public's demands for these M-1 measures relative to the gross national product vary inversely with their velocities, which are shown in the upper panel of Chart 2. Shown in the lower panel is the Treasury bill rate, representing the return on a money market alternative to holding M-1 balances. Since growth in all three of these aggregates has been very similar, movements in their velocities have been very close, although the velocity of M-1B has risen less rapidly in recent years than the velocities of M-1A and old M-1, reflecting shifts to NOW and ATS accounts of funds held in demand deposit accounts and in relatively inactive savings accounts. Average rates of increase in these velocities over longer intervals of time and over cycles are presented in the first three columns of Table 4. During economic expansions, the velocities of all three measures have tended to expand at annual rates in excess of 3 percentage points while in economic contractions levels of velocities of all three measures tend to decline or their growth at least slackens. Further, in more recent cycles the velocities of all three measures have expanded at successively more rapid rates.

Growth in the new M-2 measure is shown in Chart 3 (upper panel), along with growth in the old M-2 and M-3 aggregates (center panel).<sup>1/</sup> The bottom panel displays the differential between the yield on Treasury bills and the ceiling rate on passbook savings accounts at commercial banks which can be viewed as an indicator of the attractiveness of money market instruments relative to the interest-earning deposit components of these aggregates. This chart illustrates that growth in new M-2 has tended to vary closely with that of old M-3 and, to a lesser extent, of old M-2. In addition, growth in

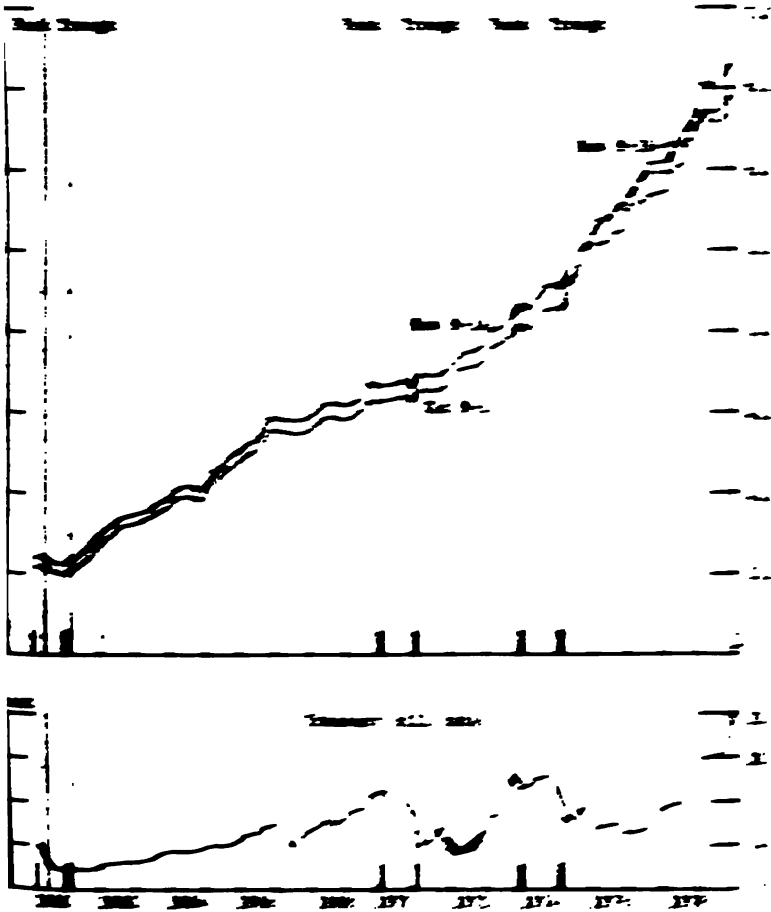
<sup>1/</sup> Appendix Table 2 contains annual and recent quarterly growth rates for these measures.

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Sheet 1

Valuations of the New York City, New York  
 County, generally, subject to annual taxes



1. Rate and change in valuation of the New York County, New York, generally, subject to annual taxes



Table 4

Trend and Cyclical Behavior of Velocities of New and Old Measures of Money  
Average annual rates of growth in percent

Period	New		Old		New		Old		New		Old	
	M-1A	M-1B	M-1	M-2	M-2	M-3	M-2	M-3	M-3	M-4	M-5	
1960-1979	3.2	3.0	3.2	-0.1	0.5	-0.3	0.4	-0.3	-0.8	0.1	-0.6	
1960-1969	2.9	2.9	2.9	-0.2	0.4	-0.3	0.4	-0.3	-0.6	0.1	-0.5	
1970-1979	3.6	3.1	3.5	0.0	0.6	-0.3	0.6	-0.3	-1.1	0.0	-0.7	
Peak to trough <sup>1/</sup>												
1960:2-1961:1	-1.7	-1.7	-1.7	-6.3	-5.3	-6.8	-6.3	-6.8	-6.7	-5.5	-6.9	
1969:4-1970:4	-0.3	-0.3	-0.3	-1.2	-2.6	-2.5	-1.2	-2.5	-4.1	-5.2	-4.3	
1973:4-1975:1	1.5	1.4	1.3	-0.5	-1.5	-1.4	-0.5	-1.4	-2.4	-3.9	-3.0	
Trough to peak <sup>2/</sup>												
1961:1-1969:4	3.1	3.1	3.1	0.1	0.6	0.0	0.6	0.0	-0.2	0.3	-0.2	
1970:4-1973:4 <sup>3/</sup>	3.6	3.5	3.5	-0.4	0.3	-1.0	0.3	-1.0	-2.4	-1.4	-2.0	
1973:1-1979:4 <sup>3/</sup>	4.9	4.1	4.9	0.6	2.1	0.9	0.6	0.9	0.6	3.0	1.5	

<sup>1/</sup> Averages of annualized quarter-to-quarter rates of growth. The base quarter for each calculation is the quarter following the peak (peak is first quarter shown).

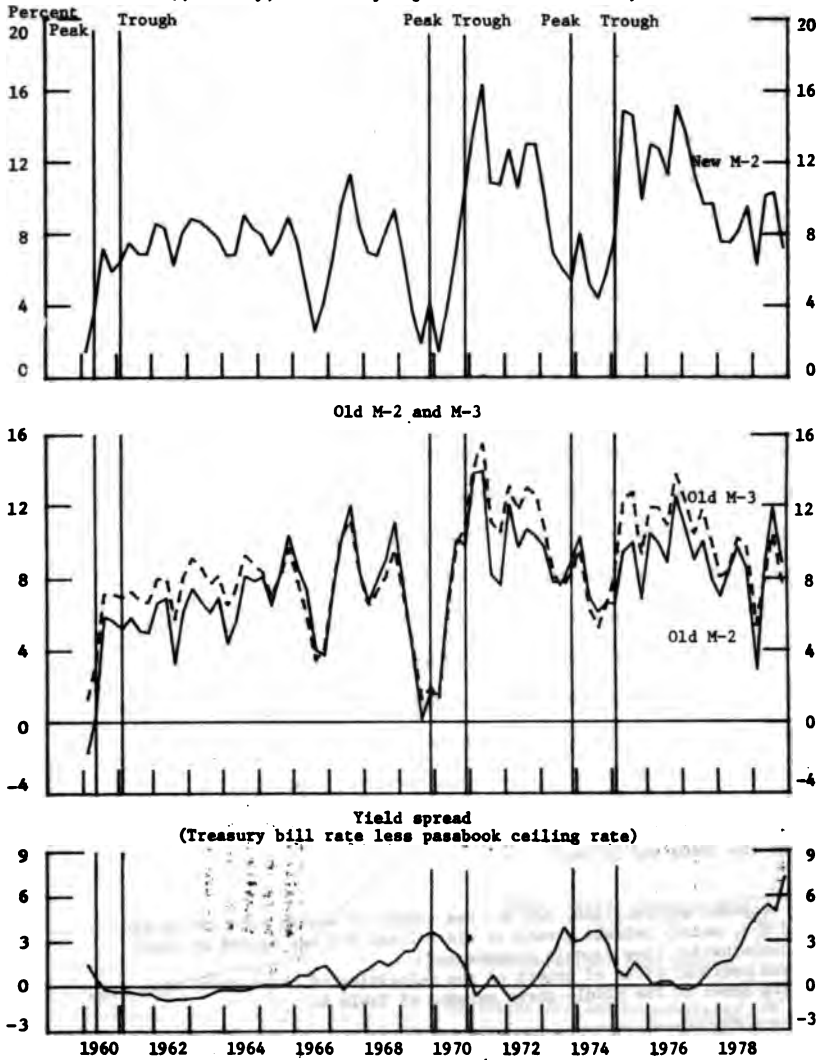
<sup>2/</sup> Averages of annualized quarter-to-quarter rates of growth. The base quarter for each calculation is the quarter following the trough (trough is first quarter shown).

<sup>3/</sup> Data for 1979:4 are most recent quarterly data available, and this quarter may not be a cyclical peak.

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Chart 3

Rates of Growth of New M-2  
and Old M-2 and M-3 Measures  
(Quarterly, seasonally adjusted at annual rates)



Note: Peaks and troughs as designated by the National Bureau of Economic Research.

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new M-2, along with growth of the two other measures shown, has been sensitive to the yield spread, tending to slow as market rates have advanced above deposit ceiling rates. The interest sensitivity of new M-2, however, can be expected to moderate in the future, if the proportion of this aggregate accounted for by components with yields that vary with money market conditions continues to expand. As shown in Chart 4, the share of new M-2 in money market certificates has risen sharply since these accounts were introduced in mid-1978 and the money market mutual fund and overnight RP and Eurodollar shares have also increased in recent years. By contrast, the M-1A and ordinary savings account shares have generally declined.

Trend and cyclical growth rates of new M-2 and old M-2 and M-3 are shown in the middle three columns of Table 3. Over longer periods of time, especially during economic expansions, growth in new M-2 has been faster than old M-2. In comparison with old M-3, growth in new M-2 has been moderately slower, except during the most recent economic expansion when sharp increases in money market mutual fund shares and expansion in overnight RPs and Eurodollars contributed to somewhat more rapid growth in new M-2.<sup>1/</sup>

The velocity of new M-2, along with velocities of old M-2 and M-3, is shown in Chart 5. New M-2 velocity has shown very little trend movement over the past two decades, although it has displayed a tendency to vary directly with the spread between market rates of interest and regulatory ceilings. By contrast, the velocity of old M-2 tended to increase, especially in recent years, while the velocity of old M-3 has shown a very slight tendency to decline over the 1960s and 1970s.<sup>2/</sup>

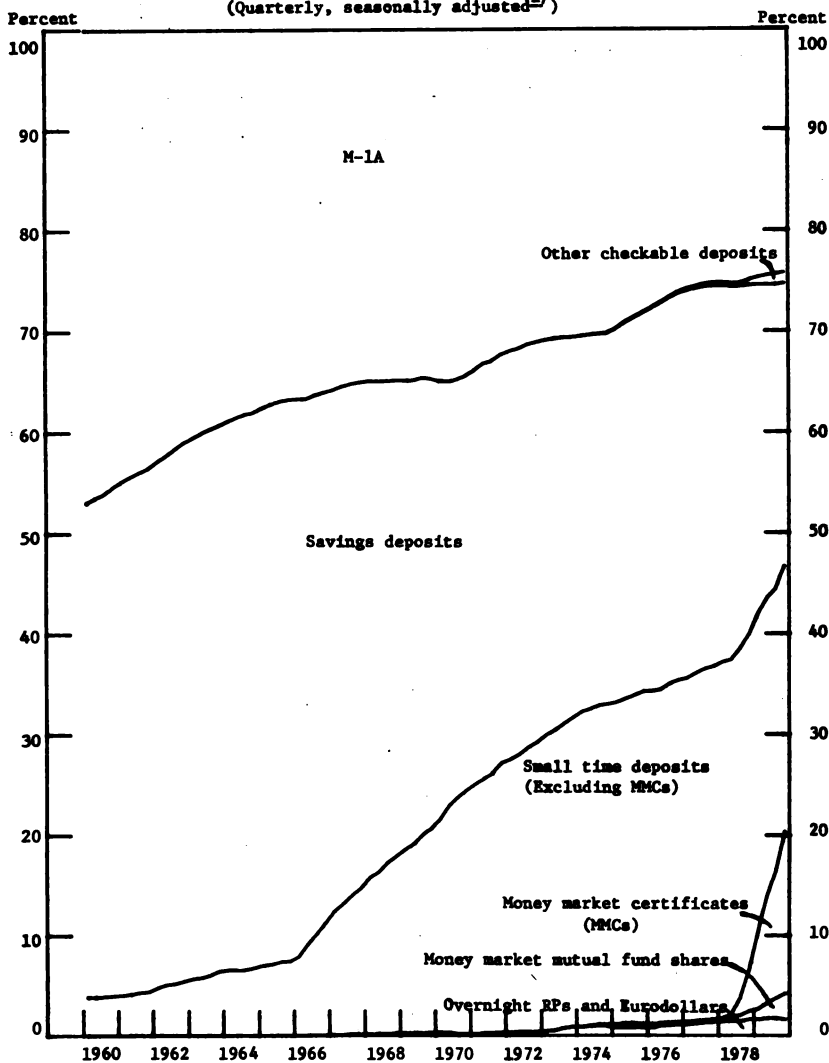
<sup>1/</sup> During economic contractions, new M-2 has tended to weaken relative to old M-2 and M-3, mainly because growth in old M-2 and M-3 was buoyed by their large-denomination time deposit components.

<sup>2/</sup> Trend and cyclical rates of growth of the velocities of these three measures are shown in the middle three columns of Table 4.

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Chart 4

Principal Components of New M-2  
As a percent of total  
(Quarterly, seasonally adjusted<sup>1/</sup>)

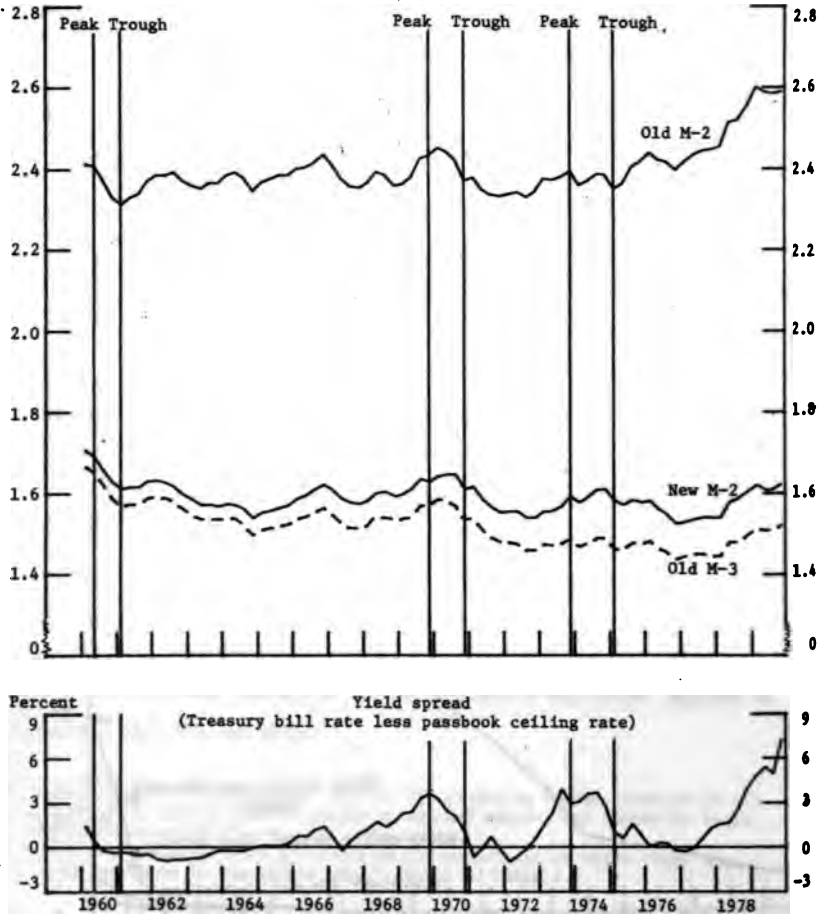


<sup>1/</sup> Other checkable deposits, MMFs, money market mutual fund shares, and overnight RPs and Eurodollars are not seasonally adjusted.

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Chart 5

Velocities of New M-2 and Old M-2 and M-3  
Measures  
(Quarterly, seasonally adjusted at annual rates)



Note: Peaks and troughs as designated by the National Bureau of Economic Research.

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The rate of growth of new M-3 is shown in Chart 6 (upper panel), along with rates of growth of the old M-4 and M-5 measures (center panel). Also shown in the upper panel of Chart 6 is the rate of growth of L, the broad measure of liquid assets.<sup>1/</sup> Chart 6 illustrates that growth rates of new M-3 and old M-5, which are similar in content, have moved closely together, although expansion in new M-3 has generally exceeded that of both of its old counterparts. The disparity between growth in new M-3 and old M-4 and M-5 widened in the late-1970s with sizable increases in RPs, money market mutual fund shares, and overnight Eurodollars; these items are components of the new M-3 aggregate but were not included in the old M-4 and M-5 aggregates.

Growth in total liquid assets, L, has been similar to--although somewhat steadier than--that of new M-3. In recent years, there has been a tendency for L to grow more rapidly than M-3 and other broad monetary aggregates, reflecting a growing proportion of liquid assets that is being issued outside domestic depository institutions.

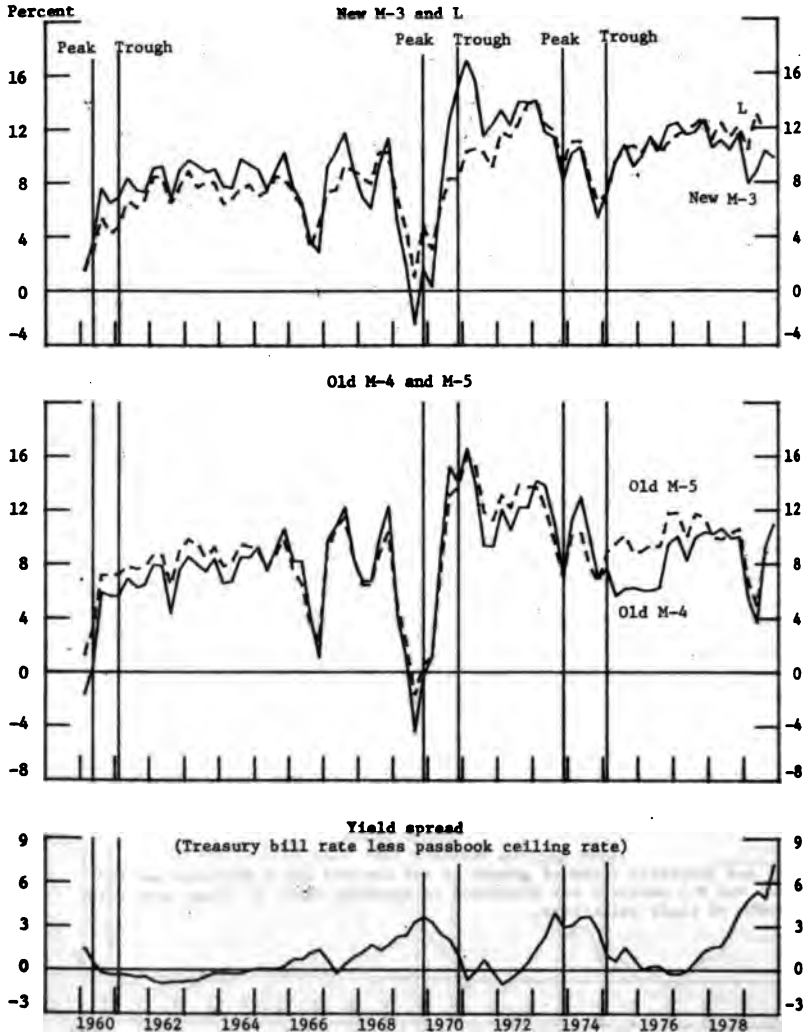
The velocity of new M-3 is shown in Chart 7, together with velocities of L and of old M-4 and M-5. While the velocity of the new M-3 has generally declined over the period shown, in recent years it has displayed some tendency to level off. The responsiveness of new M-3--and the old M-4 and M-5 measures--to changes in the interest rate spread was dampened by the removal of regulatory ceilings on some large-denomination time deposits in 1970 and on the remainder in 1973. The velocity of L has also declined over the period shown.

<sup>1/</sup> Annual and quarterly rates of growth of the new M-3 and L measures and the old M-4 and M-5 measures are presented in Appendix Table 3, along with rates of growth of their velocities.

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Chart 6

Rates of Growth of New M-3 and L and Old M-4 and M-5 Measures  
(Quarterly, seasonally adjusted at annual rates)

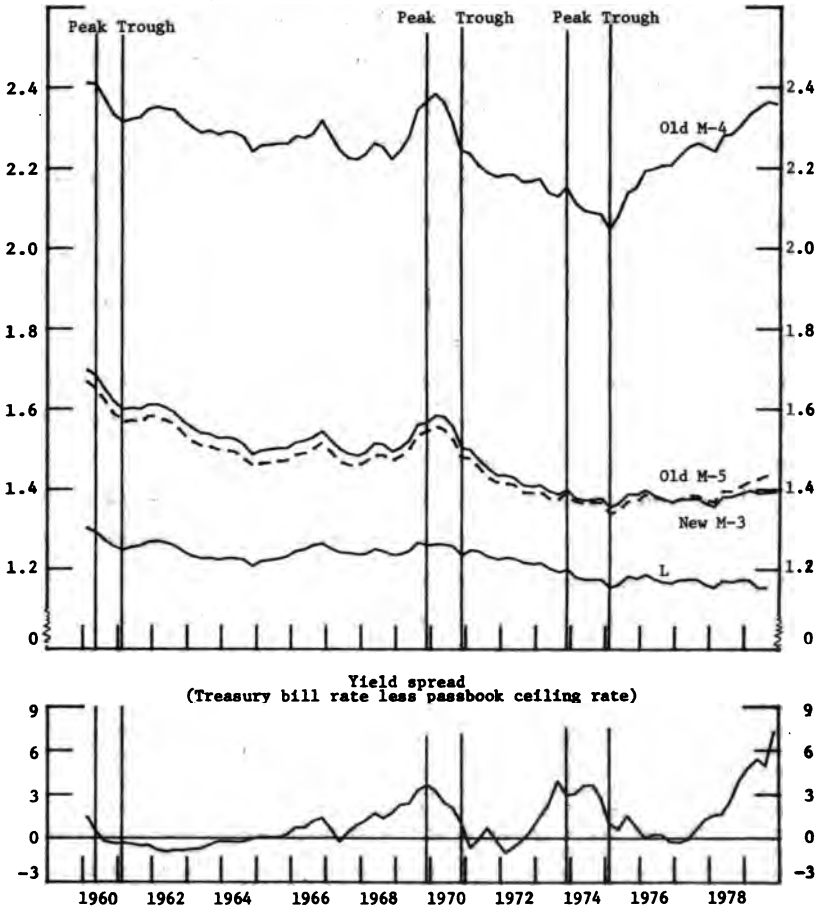


Note: Peaks and troughs as designated by the National Bureau of Economic Research

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Chart 7

Velocities of New M-3 and L and Old M-4 and M-5 Measures  
(Quarterly, seasonally adjusted at annual rates)



Note: Peaks and troughs as designated by the National Bureau of Economic Research.



#### IV. Some Technical Issues

The new aggregates incorporate consolidation and seasonal adjustments. In addition, several new data sources are being used or will be used in their construction.

##### A. Consolidation

Consolidation adjustments have been made in the construction of each of the new measures, in order to avoid double counting of the public's monetary assets.<sup>1/</sup> A major consolidation adjustment involves the netting of deposits held by depositary institutions with other depositary institutions. In constructing M-1A, demand deposits held by commercial banks with other commercial banks have been removed. The procedure also calls for the removal from M-1B of those demand deposit holdings of thrift institutions that are estimated to be used in servicing their checkable deposits, although at present the amount is negligible. Similarly, at the M-2 level all other demand deposit holdings of thrift institutions are deducted; currently that means all such demand deposits are netted from M-2.<sup>2/</sup> Savings and time deposits held by depositary institutions are also appropriately netted at the M-2 and M-3 levels.

The other major kind of consolidation adjustment involves removing the assets held by money market mutual funds from several components appearing in the M-2, M-3, and L measures.<sup>3/</sup> These institutions issue shares to the public and use the proceeds to acquire a variety of liquid assets that are

1/ A discussion of consolidation issues can be found in Advisory Committee on Monetary Statistics Improving the Monetary Aggregates, pp. 12-14, 31-27, and in "A Proposal," pp. 32, 40-41.

2/ It has been assumed that all demand deposits owned by thrift institutions are held to service their checkable deposits and their ordinary savings deposits. The portion of thrift institution holdings of demand deposits to be removed at the M-1B level is determined by the ratio of checkable deposits at thrift institutions to the sum of their checkable and savings deposit liabilities.

3/ In general the components against which a money market mutual fund adjustment is made exclude holdings by depositary institutions, the U.S. Government (including the Federal Reserve), and foreign commercial banks and official institutions.

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components of the new M-2, M-3 and L measures. In order to avoid first counting these amounts as money market mutual fund shares and then counting them again as money market fund holdings of RPs, CDs, commercial paper, and so forth, holdings of each of these assets by money market funds are subtracted from the relevant components. Thus money market fund holdings of RPs are deducted in the construction of the public's overnight RPs that appear in M-2, holdings of domestic CDs are deducted from the large time deposit component of M-3, and holdings of each of the assets appearing in L are appropriately netted.

Each of the principal components of the new aggregates will be published on the money stock release on a consolidated--and not a gross--basis, as it appears in the new aggregates. Thus differences between the published M-1B and M-2 aggregates and the sum of their published components will equal the consolidation components associated with thrift institution demand deposits.

#### B. Seasonal Adjustment

The procedure for constructing the new seasonally adjusted aggregates has been to seasonally adjust each component--wherever possible--and then to sum each component in deriving the appropriate total. Some components, however, have not been seasonally adjusted because of insufficient historical data.<sup>1/</sup> They will be seasonally adjusted once adequate data are available. The most important of the components that have not yet been seasonally adjusted (and the aggregate in which they first appear) are as follows:

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<sup>1/</sup> In some cases, even though data are available for a sufficiently long period to technically perform a seasonal adjustment, the series are dominated by strong trend and thus it is unlikely that actual seasonal patterns can be measured accurately.

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1. Other checkable deposits (M-1B)
2. Overnight RPs and Eurodollars (M-2)
3. Money market mutual fund shares (M-2)
4. Term RPs at both commercial banks and savings and loan associations (M-3)
5. Other Eurodollars held by U.S. residents (L).

A standard option of the Census X-11 program was used in the seasonal adjustment of the separate components of the new aggregates, following an examination of several alternative options. However, it should be noted that the overall issue of seasonal adjustment of the monetary aggregates has been under review by a panel of outside experts, The Committee of Experts on Seasonal Adjustment Techniques, under the chairmanship of Geoffrey H. Moore, which is scheduled to report to the Board in a few months.<sup>1/</sup>

#### C. New Data Sources

Several new data sources are being used in connection with the redefined aggregates. Most of these new sources are associated with components that are either new or appear separately for the first time, and they have been obtained in order to improve the accuracy and the timeliness of the redefined measures. It is felt that with them the quality of monetary statistics for the new measures will be at least comparable to that of the old measures.

<sup>1/</sup> Other members of this committee are George Box, Hyman Kaitz, James Stephenson, and Arnold Zellner.

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A number of new data series began around year-end 1979 and some others are scheduled to begin in early 1980.<sup>1/</sup> The most important new data sources are shown in Table 5. Most of these are collected on a sample basis, and are then benchmarked to less frequent reports of condition in order to obtain timely estimates of the total volume of each item. A sample of nonmember banks is being used to estimate demand deposits, other checkable deposits, and small and ~~large-denomination~~ time deposits on a weekly basis. Similarly, a sample of mutual savings banks, which began to be surveyed in early 1980, is being used to construct the various components of deposits at these institutions. In 1979, the Federal Home Loan Bank Board started collecting sample data three times a month from savings and loan associations on the various components of the new aggregates. A new sample of credit unions is scheduled for implementation in the spring of 1980 and should provide timely data on several components for these institutions. Data on money market mutual fund shares are being collected in a new weekly survey by the Investment Company Institute. In addition, in a monthly survey this institute collects data on the industry's holdings of various assets, for use in the consolidation process. Data on overnight Eurodollars at offices in the Caribbean are now being collected on a daily basis from all member banks with significant amounts of these deposits. Finally, a new daily report on selected federal funds and RP borrowings of 123 large member banks serves as the basis for the overnight and term RP series.

<sup>1/</sup> Other data sources are discussed in "A Proposal," pp. 33-40.

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Table 5  
New Data Sources Being Used or Scheduled to be Used in  
Constructing the Redefined Monetary Aggregates

Component (Aggregate first appearing in)	Coverage	Frequency	Lag
<u>Demand deposits (M-1A)</u> Nonmember banks <sup>1/</sup>	sample	weekly (daily avg)	2-3 weeks
<u>Other checkable deposits (M-1B)</u> Member banks (ATS & NOW) Nonmember banks (ATS & NOW) MSAs (NOW & demand deposits) S&Ls (NOW) Credit unions (share drafts) <sup>2/</sup>	universe sample sample sample sample	weekly (daily avg) weekly (daily avg) weekly (Wednesday) thrice-monthly weekly (Wednesday)	1 week 2-3 weeks 2-3 weeks 1 week 2-3 weeks
<u>Savings and small-denomination time deposits (M-2)</u> Nonmember banks MSAs S&Ls Credit unions <sup>2/</sup>	sample sample sample sample	weekly (daily avg) weekly (Wednesday) thrice-monthly weekly (Wednesday)	2-3 weeks 2-3 weeks 1 week 2-3 weeks
<u>Overnight repurchase agreements (M-2)</u> Member banks	125 large member banks	weekly (daily avg)	1 week
<u>Overnight Eurodollars at Caribbean branches (M-2)</u> Member banks	approx. universe	weekly (daily avg)	1 week
<u>Money market mutual funds shares (M-2)</u>	universe	weekly (Wednesday)	1 week
<u>Large-denomination time deposits (M-3)</u> Nonmember banks MSAs S&Ls	sample sample sample	weekly (daily avg) weekly (Wednesday) thrice-monthly	2-3 weeks 2-3 weeks 1 week
<u>Term repurchase agreements (M-3)</u> Member banks	125 large member banks	weekly (daily avg)	1 week

<sup>1/</sup> In addition, data on demand deposits of U.S. branches and agencies of foreign banks would be collected on a regulatory report of deposits with an application of reserve requirements to these institutions under the International Banking Act. At present, all U.S. branches and agencies of foreign banks report their deposits once each month and large institutions in New York City report deposits on a daily basis.

<sup>2/</sup> Scheduled to begin in March 1980. Weekly sample consists of approximately 70 of the largest credit unions. In addition, a sample of smaller credit unions will be collected once each month, as of the last Wednesday of the month.

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Appendix Table 1

Rates of Monetary and Velocity Growth for New and  
Old M-1 Measures

<u>Year</u> <sup>1/</sup>	<u>Rates of Monetary Growth</u>			<u>Rates of Velocity Growth</u>		
	New M-1A	New M-1B	Old M-1	New M-1A	New M-1B	Old M-1
1960	0.6	0.6	0.4	1.7	1.7	1.8
1961	2.8	2.8	2.8	4.3	4.3	4.2
1962	1.8	1.8	1.4	4.0	4.0	4.4
1963	4.0	4.0	4.0	2.6	2.6	2.6
1964	4.3	4.4	4.5	1.4	1.4	1.3
1965	4.4	4.4	4.3	5.8	5.8	5.8
1966	2.7	2.7	2.9	5.3	5.3	5.1
1967	6.4	6.3	6.4	-0.3	-0.2	-0.3
1968	7.4	7.4	7.6	1.8	1.7	1.6
1969	3.8	3.8	3.9	2.6	2.6	2.5
1970	4.8	4.8	4.8	-0.3	-0.3	-0.3
1971	6.6	6.6	6.6	2.7	2.7	2.8
1972	8.5	8.5	8.4	3.0	3.0	3.1
1973	5.7	5.8	6.2	5.2	5.1	4.6
1974	4.7	4.7	5.1	2.4	2.4	2.0
1975	4.7	4.9	4.6	5.1	4.9	5.2
1976	5.5	6.0	5.8	4.2	3.7	3.9
1977	7.7	8.1	7.9	4.2	3.9	4.0
1978	7.4	8.2	7.2	5.6	4.8	5.8
1979	5.5	8.0	5.5	4.2	1.8	4.2
<u>Quarter</u> <sup>2/</sup>						
1973--1	8.2	8.4	8.5	6.7	6.5	6.4
2	4.9	4.9	5.1	2.4	2.4	2.2
3	4.4	4.5	5.2	4.6	4.5	3.8
4	4.8	4.8	5.4	6.5	6.6	5.9
1974--1	6.7	6.7	7.3	-2.6	-2.6	-3.1
2	3.6	3.6	4.1	5.4	5.4	4.9
3	3.1	3.1	4.1	5.4	5.4	4.5
4	4.9	5.0	4.6	1.4	1.2	1.6
1975--1	2.6	2.9	2.0	-2.0	-2.3	-1.3
2	5.9	5.9	5.8	6.0	6.1	6.2
3	7.0	7.3	7.2	10.3	10.0	10.0
4	2.9	3.2	3.0	5.7	5.4	5.6
1976--1	5.4	5.7	4.6	8.4	8.1	9.2
2	5.8	6.3	6.4	1.3	0.8	0.7
3	3.4	3.9	4.1	4.3	3.8	3.6
4	7.0	7.6	7.4	2.4	1.8	1.9
1977--1	8.8	9.3	7.4	5.6	5.2	7.0
2	6.7	6.9	7.4	5.5	5.3	4.8
3	6.0	6.5	8.6	5.6	5.0	2.9
4	8.4	8.7	7.4	0.1	-0.2	1.1
1978--1	7.6	7.9	6.6	0.5	0.2	1.4
2	8.7	9.1	9.2	9.6	9.1	9.0
3	7.1	7.3	7.9	3.4	3.2	2.6
4	5.6	7.4	4.3	8.3	6.5	9.6
1979--1	0.2	4.8	-1.3	9.9	5.3	11.6
2	7.8	10.7	8.1	-1.2	-4.0	-1.5
3	8.8	10.1	9.7	2.6	1.3	1.7
4	4.7	5.3	5.0	5.1	4.6	4.8

<sup>1/</sup> Fourth quarter over fourth quarter growth rate.

<sup>2/</sup> Annualized growth rates based on seasonally adjusted data.

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Appendix Table 2

Rates of Monetary and Velocity Growth for New M-2  
and Old M-2 and M-3 Measures

<u>Year</u> <sup>1/</sup>	<u>Rates of Monetary Growth</u>			<u>Rates of Velocity Growth</u>		
	New M-2	Old M-2	Old M-3	New M-2	Old M-2	Old M-3
1960	4.6	2.6	4.8	-2.3	-0.3	-2.4
1961	7.1	5.4	7.1	0.0	1.7	0.0
1962	8.0	5.9	7.7	-2.0	-0.0	-1.7
1963	8.6	7.0	8.7	-1.8	-0.3	-1.9
1964	7.9	6.7	8.2	-2.0	-0.8	-2.2
1965	8.0	8.6	8.6	2.2	1.7	1.7
1966	4.9	6.0	5.4	3.1	2.0	2.7
1967	9.3	9.9	9.7	-2.9	-3.4	-3.3
1968	8.0	9.0	8.1	1.2	0.3	1.1
1969	4.2	3.2	3.6	2.3	3.2	2.8
1970	5.8	7.2	7.2	-1.2	-2.6	-2.5
1971	13.5	11.3	13.5	-3.5	-1.6	-3.5
1972	12.9	11.2	13.3	-1.0	0.5	-1.3
1973	7.3	8.8	9.0	3.5	2.1	1.9
1974	6.0	7.7	7.1	1.1	-0.5	0.1
1975	12.3	8.4	11.1	-2.0	1.5	-1.0
1976	13.7	10.9	12.7	-3.3	-0.9	-2.5
1977	11.5	9.8	11.7	0.7	2.2	0.5
1978	8.4	8.7	9.5	4.6	4.3	3.6
1979	8.8	8.3	8.1	1.0	1.4	1.6
<u>Quarter</u> <sup>2/</sup>						
1973--1	10.3	9.8	10.9	4.7	5.2	4.1
2	6.9	7.7	8.3	0.4	-0.4	-1.0
3	6.0	7.7	7.4	3.0	1.3	1.6
4	5.4	9.0	8.2	6.0	2.4	3.1
1974--1	8.0	10.3	9.6	-3.9	-6.1	-5.3
2	5.2	7.0	6.4	3.8	2.1	2.6
3	4.4	6.1	5.2	4.2	2.4	3.3
4	5.8	6.6	6.4	0.5	-0.4	-0.2
1975--1	7.8	6.4	8.2	-7.1	-5.7	-7.5
2	14.9	9.5	12.4	-2.7	2.5	-0.3
3	14.6	10.0	12.8	2.8	7.2	4.5
4	9.9	6.8	9.4	-1.1	1.9	-0.7
1976--1	13.0	10.5	12.0	0.9	3.3	1.9
2	12.7	10.0	11.9	-5.4	-2.8	-4.7
3	11.3	8.9	11.0	-3.4	-1.1	-3.1
4	15.2	12.6	13.8	-5.6	-3.1	-4.3
1977--1	13.7	10.9	12.4	0.9	3.6	2.1
2	11.2	9.0	10.5	1.0	3.2	1.7
3	9.6	10.1	11.8	1.9	1.5	-0.2
4	9.7	7.9	10.1	-1.2	0.5	-1.6
1978--1	7.5	7.0	8.1	0.6	1.1	0.0
2	7.5	8.4	8.4	10.8	9.9	9.8
3	8.2	9.8	10.3	2.3	0.8	0.3
4	9.5	8.5	9.8	4.4	5.4	4.1
1979--1	6.3	2.8	5.3	3.9	7.3	4.8
2	10.2	8.8	7.9	-3.5	-2.1	-1.3
3	10.3	11.9	10.5	1.1	-0.5	0.9
4	7.2	8.9	7.8	2.7	1.0	2.1

<sup>1/</sup> Fourth quarter over fourth growth rate.

<sup>2/</sup> Annualized growth rates based on seasonally adjusted data.

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Appendix Table 3

Rates of Monetary and Velocity Growth for New M-3 and L  
and Old M-4 and M-5 Measures

Year <sup>1/</sup>	Rates of Monetary Growth				Rates of Velocity Growth			
	New M-3	New L	Old M-4	Old M-5	New M-3	New L	Old M-4	Old M-5
1960	4.8	3.5	2.6	4.8	-2.5	-1.2	-0.3	-2.4
1961	7.7	6.2	6.5	7.9	-0.5	0.9	0.6	-0.7
1962	8.8	8.0	7.1	8.5	-2.7	-2.0	-1.2	-2.4
1963	9.5	8.4	8.3	9.6	-2.6	-1.6	-1.6	-2.7
1964	8.9	7.3	7.8	9.0	-2.8	-1.4	-1.8	-2.9
1965	9.2	8.1	9.5	9.1	1.1	2.2	0.9	1.2
1966	5.2	5.5	5.5	5.0	2.8	2.5	2.6	3.0
1967	10.4	8.5	10.7	10.3	-3.9	-2.2	-4.2	-3.8
1968	8.7	9.5	9.3	8.3	0.6	-0.2	0.0	0.9
1969	1.5	4.4	0.1	1.5	5.0	2.0	6.4	4.9
1970	8.9	6.5	10.2	9.2	-4.1	-1.9	-5.1	-4.3
1971	14.8	10.4	12.8	14.3	-4.6	-0.8	-2.9	-4.2
1972	14.0	12.9	12.3	13.9	-2.0	-1.0	-0.5	-1.9
1973	11.7	12.3	12.0	11.0	-0.5	-1.1	-0.8	0.1
1974	8.7	9.6	10.7	9.0	-1.4	-2.2	-3.1	-1.7
1975	9.4	9.8	6.6	9.7	0.6	0.2	3.3	0.3
1976	11.4	11.0	7.1	10.2	-1.3	-1.0	2.6	-0.3
1977	12.6	12.6	10.1	11.7	-0.3	-0.3	2.0	0.5
1978	11.3	12.3	10.6	10.6	1.9	1.0	2.5	2.5
1979	9.5	n.a.	7.5	7.6	0.3	n.a.	2.2	2.1
Quarter <sup>2/</sup>								
1973-1	14.0	14.0	14.2	13.7	1.0	1.1	0.9	1.3
2	11.7	12.3	13.8	12.2	-4.3	-4.8	-6.3	-4.7
3	11.2	11.8	11.0	9.6	-2.2	-2.7	-1.9	-0.6
4	8.0	9.1	7.0	7.1	3.3	2.2	4.4	4.3
1974-1	10.1	11.0	11.4	10.2	-5.9	-6.7	-7.1	-6.0
2	10.6	11.1	12.8	10.3	-1.5	-1.9	-3.6	-1.2
3	7.7	8.4	9.9	7.8	0.9	0.1	-1.3	0.8
4	5.4	6.6	6.9	6.7	0.8	-0.3	-0.7	-0.4
1975-1	7.2	7.1	7.6	8.9	-6.4	-6.4	-6.9	-8.1
2	9.4	9.5	5.5	9.5	2.6	2.5	6.5	2.5
3	10.7	10.5	6.2	10.1	6.5	6.8	11.1	7.1
4	9.1	10.7	6.2	8.8	-0.4	-1.9	2.4	-0.1
1976-1	9.9	10.1	6.0	9.0	4.0	3.7	7.8	4.8
2	11.3	11.1	6.0	9.4	-4.1	-3.9	1.0	-2.2
3	10.3	10.0	6.3	9.2	-2.5	-2.2	1.5	-1.4
4	12.1	10.8	9.5	11.8	-2.6	-1.4	-0.1	-2.3
1977-1	12.4	11.5	10.1	11.8	2.2	3.0	4.4	2.7
2	11.4	11.8	8.3	10.0	0.8	0.4	3.9	2.2
3	11.7	12.2	10.0	11.7	-0.1	-0.6	1.6	-0.1
4	12.5	12.8	10.4	11.5	-3.9	-4.2	-1.9	-2.9
1978-1	10.5	11.2	10.2	10.0	-2.3	-3.0	-2.1	-1.8
2	11.1	12.4	10.6	9.8	7.2	5.9	7.6	8.4
3	10.3	11.3	9.9	10.4	0.2	-0.7	0.6	0.2
4	11.5	12.2	10.1	10.7	2.4	1.8	3.8	3.3
1979-1	7.9	10.4	5.4	6.8	2.3	-0.2	4.7	3.4
2	8.8	13.1	3.7	4.9	-2.2	-6.3	2.9	1.7
3	10.3	11.7	9.2	8.9	1.1	-0.3	2.2	2.5
4	9.8	n.a.	11.0	9.1	0.1	n.a.	-1.0	0.8

n.a.—Not available as data for December 1979 are incomplete.

<sup>1/</sup> Fourth quarter over fourth quarter growth rates.

<sup>2/</sup> Annualized growth rates based on seasonally adjusted data.



## APPENDIX B

## DESCRIPTION OF THE NEW PROCEDURES FOR CONTROLLING MONEY

The New Federal Reserve Technical Procedures  
for Controlling Money

As part of its anti-inflationary program announced on October 6, 1979, the Federal Reserve changed open market operating procedures to place more emphasis on controlling reserves directly so as to provide more assurance of attaining basic money supply objectives. Previously, the reserve supply had been more passively determined by what was needed to maintain, in any given short-run period, a level of short-term interest rates, in particular a level of the federal funds rate, that was considered consistent with longer-term money growth targets. Thus, the new procedures entail greater freedom for interest rates to change over the short-run in response to market forces. <sup>1/</sup>

This note describes the new technical operating procedures and how the linkage between reserves and money involved in the procedures is influenced by the existing institutional framework and other factors. This linkage is relatively complicated and variable, particularly over the short-run, so that, for example, it does not necessarily follow that rapid expansion of reserves would be accompanied by, or would presage, rapid expansion of money. The exact relationship depends on the behavior of other factors besides money that absorb or release reserves, and consideration must also be given to timing problems in connection with lagged reserve accounting.

In setting reserve paths to control money under existing conditions account must be taken of: (i) the prevailing reserve requirement structure, with varying reserve requirements by type of deposit (some of which may not be included in targeted money measures) and by size of deposit; (ii) the public's demand for currency relative to deposits; (iii) availability of reserves at bank initiative from the discount window; (iv) lags in response

<sup>1/</sup> Consistent with this, the federal funds rate range adopted by the Federal Open Market Committee for an intermeeting period has been greatly widened.

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on the part of the public and banks to changes in reserve supply through open market operations; (v) the growing amount of money-supply type deposits at institutions not subject to reserve requirements set by the Federal Reserve; (vi) lagged reserve accounting. To help insure that operations are undertaken most effectively, the Federal Reserve has the new operating technique and related factors under continuous examination in light of experience gained. At present, studies are under way on such elements as lagged reserve accounting and the role of the discount window. Possible changes in other elements involved with the technique would require Congressional action--such as extending reserve requirements to nonmember institutions and certain aspects of simplifying reserve structure.

The principal steps in the new procedure are outlined below.

(1) The policy process first involves a decision by the Federal Open Market Committee on the rate of increase in money it wishes to achieve. For instance, at its October 6 meeting, taking account of its longer-run monetary targets and economic and financial conditions, the Committee agreed upon an annual rate of growth in M-1 over the 3-month period from September to December on the order of  $4\frac{1}{2}$  percent, and of M-2 of about  $7\frac{1}{2}$  percent, but also agreed that somewhat slower growth was acceptable.

(2) After the objective for money supply growth is set, reserve paths expected to achieve such growth are established for a family of reserve measures. These measures consist of total reserves, the monetary base (essentially total reserves of member banks plus currency in circulation), and nonborrowed reserves. Establishment of the paths involves projecting how much of the targeted money growth is likely to take the form of currency, of deposits at nonmember institutions, and of deposits at member institutions (taking account of differential reserve requirements by size of demand deposits and between the demand and time and savings deposit components of M-2).

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Moreover, estimates are made of reserves likely to be absorbed by expansion in other bank liabilities subject to reserve requirements, such as large CD's, at a pace that appears consistent with money supply objectives and also takes account of tolerable changes in bank credit. Such estimates are necessary because reserves that banks use to support expansion of CD's, for example, would not be available to support expansion in M-1 and M-2. Thus, if the reserves required behind CD's were not provided for in the reserve path, expansion in M-1 and M-2 would be weaker than desired. The opposite would be the case if the reserve path were not reduced to reflect contraction of large CD's. For similar reasons, estimates are also made of the amount of excess reserves banks are likely to hold.

(3) The projected mix of currency and deposits, given the reserve requirements for deposits and banks' excess reserves, yields an estimate of the increase in total reserves and the monetary base consistent with FOMC monetary targets. The amount of nonborrowed reserves--that is total reserves less member bank borrowing--is obtained by initially assuming a level of borrowing near that prevailing in the most recent period. For instance, following the October 6 decision, a level of borrowing somewhat above that of September was initially assumed. Following subsequent meetings, the assumed level of borrowing for the nonborrowed path was always close to the level prevailing around the time of the FOMC meeting, though varying a little above and below that level.

(4) Initial paths established for the family of reserve measures over, say, a 3-month period are then translated into reserve levels covering shorter periods between meetings. These paths can be based on a constant seasonally adjusted rate of growth of the money targets on, say, a month-by-month basis, or can involve variable monthly growth rates within the 3-month period if that appears to facilitate achievement of the longer-run money targets.

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(5) Total reserves provide the basis for deposits and thereby are more closely related to the aggregates than nonborrowed reserves. Thus total reserves represents the principal over-all reserve objective.<sup>1/</sup> However, only nonborrowed reserves are directly under control through open market operations, though they can be adjusted in response to changes in bank demand for reserves obtained through borrowing at the discount window.

(6) Because nonborrowed reserves are more closely under control of the System Account Manager for open market operations (though subject to a small range of error because of the behavior of non-controlled factors affecting reserves, such as float), he would initially aim at a nonborrowed reserve target (seasonally unadjusted for operating purposes) established for the operating period between meetings. To understand how this would lead to control of total reserves and money supply, suppose that the demand for money ran stronger than was being targeted--as it did in early October of last year. The increased demand for money and also for bank reserves to support the money would in the first instance be accompanied by more intensive efforts on the part of banks to obtain reserves in the federal funds market, thereby tending to bid up the federal funds rate, and by increased borrowing at the Federal Reserve discount window. As a result

<sup>1/</sup> In the control process, the monetary base in practice is given less weight than total reserves. This is principally for a technical reason. If currency, the principal component of the base, is running stronger than anticipated achievement of a base target would require a dollar-for-dollar weakening in member bank reserves. But because of fractional reserve requirements, the weakening in reserves would have multiple effect on the deposit components of the monetary aggregates (it could weaken the demand deposit component by about 6 times the decline in reserves). Achievement of a base target in the short run could therefore lead, in this example, to a much weaker money supply than targeted. If a total reserve target were achieved the money supply would be stronger than targeted, but only by the amount by which currency is stronger than expected. Thus the variation from a money supply target would be less under total reserves than under a monetary base guide. Of course, should currency persistently run stronger or weaker than expected, compensating adjustments could be made to either a total reserves or monetary base target.

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of the latter, total reserves and the monetary base would for a while run stronger than targeted. Whether total reserves tend to remain above target for any sustained period depends in part on the nature of the bulge in reserve demand--whether or not it was transitory, for example--and in part on the degree to which emerging market conditions reflect or induce adjustments on the part of banks and the public. These responses on the part of banks, for example, could include sales of securities to the public (thereby extinguishing deposits) and changes in lending policies.

(7) Should total reserves be showing sustained strength, closer control over them could be obtained by lowering the nonborrowed reserve path (to attempt to offset the expansion in member bank borrowing) and/or by raising the discount rate. A rise in the discount rate would, for any given supply of nonborrowed reserves, initially tend to raise market interest rates, thereby working to speed up the adjustment process of the public and banks and encouraging a more prompt move back to the path for total reserves and the monetary base. Thus, whether adjustments are made in the nonborrowed path--the only path that can be controlled directly through open market operations--and/or in the discount rate depends in part on emerging behavior by banks and the public. Under present circumstances, however, both the timing of market response to a rise in money and reserve demand, and the ability to control total reserves in the short run within close tolerance

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limits, are influenced by the two-week lag between bank deposits and required reserves behind these deposits.<sup>1/</sup>

(8) Other intermeeting adjustments can be made to the reserve paths as a family. These may be needed when it becomes clear that the multiplier relationship between reserves and money has varied from expectations. The relationship can vary when, for example, excess reserves and non-money reservable liabilities are clearly running higher or lower than anticipated. Since October 6 such adjustments during the intermeeting period have been made infrequently. Given the naturally large week-to-week fluctuations in factors affecting the reserve multiplier, deviation from expectations in one direction over a period of several weeks would be needed before it would be clear that a change in trend has taken place.

A variable relationship between expansion of reserves and of money is implicit in the description of procedures just given. This is illustrated by experience in the fourth quarter, as shown in the table on the next page. It can be seen from panel I that M-1 increased at only a 3.1 percent annual rate (seasonally adjusted) in that period and M-2 at a 6.8 percent rate. At the same time, as shown in panel II, nonborrowed reserves, total reserve and the monetary base rose at substantially more rapid rates--by annual rates of about 13, 13½, and 8 percent, respectively.

There were a number of reasons for the much more rapid growth in reserves and the base than in the monetary aggregates. Only about 1 percentage point of the 13½ percent annual rate of increase in total reserves

<sup>1/</sup> Under lagged accounting, banks are not required to hold reserves against deposits until two weeks later. With required reserves fixed at that time, the Federal Reserve in its operations is limited in its ability to control total reserves within a given week (since the total of reserves is determined by required reserves and banks' excess reserves), but can more readily determine whether the banking system satisfies its reserve requirement through the availability of nonborrowed reserves, or is forced to turn to the discount window (or to reduce excess reserves, though most banks are usually close to minimal levels in that respect).

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**Changes in Reserve and Monetary Aggregates**  
**September to December 1979**  
**(Seasonally adjusted)**

	<u>Percent Annual Rate <sup>1/</sup></u>	<u>Change in Millions \$</u>
<b>I. Changes in Monetary Aggregates:</b>		
A. M-1	3.1	2845
1. Currency outside banks	5.3	1400
2. Member bank demand deposits	2.3	972
3. Nonmember bank demand deposits	2.1	473
B. M-2	6.8	15961
<b>II. Changes in Reserves and Related Items:</b>		1309
A. Nonborrowed reserves	12.9	
B. Borrowings	--	131
C. Total reserves (A + B)	13.8	1430
D. Currency <sup>2/</sup>	5.9	1606
E. Monetary base (C + D)	8.1	3046
	<u>Percentage Points Contributed Towards Growth of Total Reserves</u>	<u>Change in Millions \$</u>
<b>III. Total Reserves Absorbed by:</b>		
A. Private demand deposits	1.1	111
B. Interbank demand deposits	2.7	280
C. U.S. Government demand deposits	0.0	3
D. Large, negotiable CD's	3.6	378
E. M-2 time and savings deposits	4.5	466
F. Nondeposit items	0.0	-3
G. Excess reserves	2.0	205
<b>Addendum:</b>		
Impact of lagged reserve accounting on:		
1. Total reserves		287 <sup>3/</sup>
2. Reserves against private demand deposits		-64
3. Reserves against M-2 time and savings deposits		121
4. All other items subject to reserves		230

<sup>1/</sup> Growth rates of reserves adjusted for discontinuities in series that result from changes in Regulations D and M.

<sup>2/</sup> Includes vault cash of nonmember banks.

<sup>3/</sup> Reflects change in total reserves during period attributable to fact that required reserves are based on deposits two weeks earlier, rather than on deposits contemporaneous with reserves. Thus, adjusted to a basis contemporaneous with deposit growth from September to December, total reserves would have expanded \$287 million, or 2.8 percentage points, less than they actually did.

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supported growth in the member bank demand deposit component of M-1 (as may be seen from line III.A of the table). An additional 4½ percentage points supported the member bank interest-bearing component of M-2 (line III.E). As less than half of the increase in reserves supported expansion in targeted monetary aggregates. More than half of the reserves supported expansion in interbank demand deposits, excess reserves, and large negotiable certificates of deposit. If these reserves had not been supplied, growth in M-1 and M-2 would have been much slower. In fact, actual growth in M-1 and M-2 was a bit slower than targeted, though not less than the Committee found acceptable.<sup>1/</sup>

As this example from recent experience helps demonstrate, the behavior of reserve measures in relation to money can be expected to vary with shifts in the currency and deposit mix, with changes in bank demands for excess reserves and borrowing, and with timing problems related to lagged reserve accounting. But even in evaluating money growth itself, which the Federal Open Market Committee sets as a target in the policy process, recognition has to be given to the likelihood that money growth can vary substantially on a month-to-month basis in view of inherently large and erratic money flows in so vast and complex an economy as ours.

<sup>1/</sup> Moreover, the relatively rapid expansion in reserve measures was not associated with strength in bank credit, which in the fourth quarter grew at only about a 3 percent annual rate, well below its earlier pace. The slow expansion in bank credit during the fourth quarter reflected, on the liability side, a sharp reduction in the outstanding amount of borrowing by banks through Euro-dollars, federal funds, and repurchase agreements.

January 30, 1980



The CHAIRMAN. Thank you very much, Chairman Volcker, for an extremely able statement. We will now inquire under the 5-minute rule.

Friday, the Fed raised the discount rate from 12 to 13 percent, and knocked the stuffings out of the stock market, the bond market, and caused banks, many of them, to raise their prime rate, and the Japanese to raise their discount rate. Back on October 16, a few days after the sensible October 6 reform by the Fed, in which you gave up your preoccupation with the Federal funds rate and concentrated on the monetary aggregates, I wrote you a letter, Chairman Volcker, which I ask unanimous consent be included in the record at this point.

Without objection, the letter will be so included.

[The letter follows:]

U.S. HOUSE OF REPRESENTATIVES,  
COMMITTEE ON BANKING, FINANCE AND URBAN AFFAIRS,  
Washington, D.C., October 16, 1979.

HON. PAUL A. VOLCKER,  
Chairman, Board of Governors, Federal Reserve System,  
Washington, D.C.

DEAR CHAIRMAN VOLCKER: The Federal Reserve's actions of Saturday, October 6 were constructive. They conveyed a well-timed, impressive signal abroad. As in late October, 1978, there was a clear need for a "show of force" to quell speculation and rising instability on the international currency and commodity markets. In this the Federal Reserve has apparently succeeded.

So far, the Federal Reserve has also avoided boxing itself rigidly into any one monetary policy posture for the indefinite future. This is most important. Conditions change, sometimes with astonishing speed. Yesterday, we needed to deliver a sharp reminder of our determination to defeat inflation to the world markets. Today, I believe, we need to return to a steady policy of moderate monetary and fiscal restraint, coupled with a broad-based program to remedy structural ills, that can alone eliminate the sources of inflation that have become embedded in our economy over the years. It is foolhardy to believe that this deliverance can be effected overnight, by some mystical transformation in the "state of inflationary expectations." Such a transformation was attempted by policy-makers who brought on the recession of 1974-75—and it did not occur. We need instead to get back on the track of investment, innovation, reconstruction and steady growth that can pull us out of stagflation over the long haul.

The jettisoning of the rigged interest rate approach to monetary policy, and a shift of emphasis to monetary targets, is something that we of the Banking Committee have long urged. In my view, we need the lowest structure of interest rates that is consistent with your moderate monetary targets. That structure can best be achieved in free competition among lending institutions. If free competition is permitted, the interest rate structure that emerges will be the one, consistent with the monetary targets, that will yield the maximum investment, and the maximum gain in productivity, and therefore the maximum contribution to lower inflation in the future.

But existing Federal Reserve policy includes a vestige from the pre-October 6 past, which not only flies in the face of the post-October 6 monetary order, but also in the face of what I believe to be an imperative national objective: Get That Prime Rate Down!

I refer to the discount rate, still as firmly fixed by the Federal Reserve after October 6 as before.

Federal Reserve pegging of the discount rate is, as of ten days ago, anachronistic. It is simply inconsistent with the new spirit of monetary policy, a throwback to the discarded Federal funds fetishism of yore.

Moreover, pegging the discount rate can have pernicious consequences when, as many predict, the economy does peak over into recession. Under such circumstances stability of the monetary aggregates will demand a reasonably rapid adjustment of interest rates; a fixed discount rate will impede such adjustment. The Federal Reserve will in effect be providing the banks with a price floor—a virtual Gary Dinner for bankers. This will be satisfactory for bank profits but dreadful for everyone else. Propping up interest rates in the face of collapsing demand is as bad for the economy as holding them down in an inflationary explosion.

Until now, the existence of an administered discount rate, however, unimportant in relation to aggregate credit flows, had some utility as a clear signal of the Federal Reserve Board's intentions. Time and use have, however, conspired to give this "signal" of policy a life of its own. In particular, foreign exchange markets have come to use the discount rate as a litmus test of the Board's intentions to support the international dollar. But these markets apparently do not look at the level of the discount rate, but only at the time elapsed since the last time it was raised. This is a very unhealthy development: it commits the Board to regular reassertions of the true faith. The result is to put interest rates generally on an endless escalator since, clearly, the discount rate cannot rise without concomitant open-market operations to keep other rates roughly in line. The danger, again, is that when the economy slows and credit demands peak out, the discount rate will serve as a floor to all interest rates, riveted in place by fear of a run on the dollar. Such conditions could greatly exacerbate recession.

The cure is to act now, and release the discount rate from its present short leash. The Federal Reserve should disassociate itself from movements in the discount rate, by tying it in some predetermined relationship to the borrower's prime rate. This would promote bank competition, since lenders with lower prime rates could take advantage of lower interest rates on their own borrowings, and would therefore not suffer a squeeze on their margins relative to their higher-priced neighbors. The details of the linkage—whether a fixed ratio, or a fixed differential between discount and prime, or some other relationship—can be left safely to the technical experts. What is important is that action come quickly, before events force the issue.

I look forward to your response.

Sincerely,

HENRY S. REUSE, *Chairman.*

The CHAIRMAN. The letter said, congratulations on your getting rid of the Federal funds fetish and concentrating on the monetary aggregates. But I also urged the following:

Federal Reserve pegging of the discount rate is, as of October 6, anachronistic. It's simply inconsistent with the new spirit of monetary policy.

And further, I said the thing to do is to:

\* \* \* act now, and release the discount rate from its present short leash. The Federal Reserve should disassociate itself from movements in the discount rate, by tying it in some predetermined relationship to the borrower's prime rate. This would promote bank competition, since lenders with lower prime rates could take advantage of lower interest rates on their own borrowings, and would therefore not suffer a squeeze on their margins relative to their higher priced neighbors.

Why didn't you do that? And why don't you even at this late date adopt what I think is a sensible policy and consistent with your extremely sensible October 6 conversion, and thus avoid kicking the heck out of the markets when you change the discount rate?

It just should not be used, in my judgment, as a signal. It is as unwarranted as the potlatch ceremonies of the Indians who, in their exuberance to greet a friend, would burn down a house. It is just not necessary.

Mr. VOLCKER. I don't think it's used entirely as a symbol nor equivalent to the potlatch ceremonies of the Indians. Nor do I think that we have really "knocked the stuffings" out of the market.

Let me just note, in that connection, that the bond market, in a sense, had the stuffings knocked out of it long before—several weeks before—we acted here.

The CHAIRMAN. You delivered the coup de grace.

Mr. VOLCKER. It was responding to other developments. Nor do I think the Japanese actions ought to be related too closely to our action. But the answer to your question is a long and maybe complicated story. I don't think it's really possible or wise for us to move to the

degree of automaticity that you suggest for the discount rate without changing some other characteristics of borrowing and the use of the discount window that have been ingrained in Federal Reserve thinking and commercial bank thinking over the course of 50 or 60 years.

The CHAIRMAN. If I may interrupt—isn't that just polite language for saying that the Fed over 50 or 60 years hasn't wanted to offend bankers by saying, "Look, we are not going to open the discount window"?

Mr. VOLCKER. I think it does go to the point that the discount window, in a sense—in Federal Reserve jargon—has always been a "privilege" and not a "right." If banks could automatically borrow freely from the discount window, then I think we would be compelled by logic to keep it at a penalty rate, very closely aligned with market rates.

Now that has not been the practice through a good many years. We are studying that option, among others, in connection with these new techniques, but we want to be pretty sure of our grounds before we make that significant a change. In practice, given the environment in which we do work, raising the discount rate last fall—and it is a matter of judgment whether it should have been raised or not—would have had the effect, I think, of raising market rates further. So we had to come to a judgment as to whether that was desirable or undesirable under the circumstances. What we had our eye on at that time, among other things, was that the monetary growth and the credit growth was coming very much in line with our objectives and, therefore, it did not seem necessary or perhaps desirable to bring further pressure on the market—which would have been the result, I am sure, of raising the discount rate at that particular time.

The situation is a little different now. We have had inflationary expectations increase again, I think largely due to external developments. The most recent indication, while it is still very tentative, is that credit growth, and possibly money growth, may be showing some tendency to speed up so we wanted to move against that at the earliest opportunity.

The CHAIRMAN. Well, the suggestion in my October 16 letter is that you move against it by tightening the discount window, and don't validate every claim that comes in from the banking community.

May I ask when the Federal Reserve will have completed the study on the proposition raised by my October 16 letter?

Mr. VOLCKER. I don't want to estimate too precisely. We will, in the next few weeks, have the staff material together and be looking at it very carefully. I think this is related to the question of lagged reserve accounting, which you have raised from time to time in the past, Mr. Chairman, and which is another matter that we have been looking at very closely. I just don't want to project a precise date for a decision. Even if we reach the conclusion that we don't want to make a sweeping change immediately, I am sure we will keep it under review for the future.

Both of those kinds of changes—in terms of Federal Reserve history—I do think raise rather profound questions about commercial bank operations and attitudes, as well as about our own operations and attitudes.

The CHAIRMAN. Well, you were sworn in to your very successful magistracy at the Fed on August—

Mr. VOLCKER. Early August.

The CHAIRMAN [continuing]. August 6. Well, in 2 months you made a "brave new world," and discarded the leading shibboleth of the Fed, namely the Federal funds fetish. Surely the little discount rates and the little lag reserve niceties I have put to you can be handled soon. The impossible—you did it once. The difficult, you ought to be able to do soon, turn out by the Ides of March. [Laughter.]

Mr. VOLCKER. I would hope that that record suggests that I am not just jousting with shibboleths, but rather that there are substantive questions as to the appropriate way of doing things. I don't want to overestimate the importance of either of these things. We can reach our objectives, I think, under the current procedures, but it may be that they should be changed, and I certainly approach it with a very open mind.

The CHAIRMAN. You are doing so well. We just want to make you perfect. [Laughter.]

Thank you very much. Mr. Stanton?

Mr. STANTON. Thank you, Mr. Chairman. Mr. Volcker, as the chairman has pointed out, you took office in early August. Within a couple of months, on October 6, you changed the emphasis in the conduct of monetary policy.

I would simply first point out publicly that since then many of us who have traveled abroad, talked to financial ministers of different countries, or have had them visit our office, have gone through a period of the need to reassure them that this new program of monetary restraint was something that's going to last.

There was a real feeling of insecurity around the world as to—today, when we say something, whether we really mean it—or not! I've always answered, "Yes, I'll give you one answer, and that is Paul Volcker." The man that enjoys universal respect especially including politicians, both in the administration and in the Congress.

And so 6 months later, I want to compliment you. Surprisingly, with double digit inflation—I am quite pleasantly surprised to see so many politicians still talking to you!

Mr. VOLCKER. I appreciate those comments, Mr. Stanton. But if I can interject, I don't think this process, quite obviously, can be or is dependent upon any one person. There is still a good deal of skepticism around.

I think we have, in a sense, been thrown for a loss, collectively, by what has happened internationally, in terms of the concerns that inevitably have arisen out of the Iranian situation, the Afghanistan situation, the implications for defense spending here, other implications around the world and, perhaps most particularly, the whole oil pricing situation with the uncertainties that surround that—even in the future, even after having had these enormous increases.

We are going to really get confidence—and lasting confidence—as the record shows that we maintain an attitude of restraint and a posture of restraint over a period of time and, even more importantly, as that begins to show results.

Mr. STANTON. Mr. Volcker, on page 6 of your report you refer to the fact that I think that the majority—in your short statement—the majority of the members of the Board agree with the administration that an economic downturn could take place, probably later this year.

Is that your own personal opinion? And if so, do you think that it will be stronger than what you perceived 6 months ago?

Mr. VOLCKER. The main point that I would make in that connection—and I think this is very much where I would like the emphasis to be—is about the uncertainty of the outlook. Nobody's projection—whether it is the administration's or the Board of Governors', or my personal projection—should be taken as indicating any very precise prediction about the outlook.

My own feeling has been that we have had 5 years of expansion; it has been an exceptionally long expansion. There are indications in the pattern of business activity, particularly the extraordinarily high level of spending relative to income by consumers, that the economy may be vulnerable to an adjustment or a downturn. That certainly has not developed, despite almost everybody's expectation in the past year.

If I had to make a single guess, I would think that at some point during the year we are going to have some kind of adjustment. But if you ask me whether I put a lot of weight on that forecast, I do not; and I think we have to shape our policies as best we can in a way that recognizes all the contingencies, including the fact that the economy may be a lot stronger than people expect. That has been the recent experience, and we now find economic forecasters rather busily raising their sights.

Mr. STANTON. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Mitchell?

Mr. MITCHELL. Thank you, Mr. Chairman.

It is good to see you again, Mr. Volcker. I think there is a slight error in your report which has relevance for your target for  $M_{1B}$ . You have set your target growth range at 4 to 6½ percent. Then, on page 5 you indicate that 5¼ percent would be pretty much right on target. This is way below what you say was the 1979 expansion rate of 7.3 percent for  $M_{1B}$ . Moreover, I think, really, between the final or fourth quarters of 1978 and 1979,  $M_{1B}$  grew 8 percent, not 7.3 percent.

Mr. VOLCKER. I am afraid you are right, Mr. Mitchell. The right figure is on the attachment to the statement I gave this morning: it was 8 percent during the course of 1979.

Mr. MITCHELL. OK. I didn't raise that just to nitpick.

Mr. VOLCKER. I understand.

Mr. MITCHELL. I want to get to my question, and that is: If  $M_{1B}$  growth was really 8 percent in 1979 and now you plan to drop it down to 5¼ percent, my concern is that that deceleration is just too great. That is almost 3 percent.

You and I have talked on many occasions about the need to stay within your targets, and, if we are going to slow down money growth, to do it on a gradual basis. Why wouldn't you want to aim at a growth rate of 6½ percent, rather than 5¼ percent?

Mr. VOLCKER. First of all, let me explain a technical point that I think is important here, Mr. Mitchell, and then give you a general answer.

It is true that the recorded  $M_{1B}$  figure—charting backward now on the basis of the new definitions—was 8 percent in 1979. But in 1979 we did have something of a surge in ATS and NOW accounts, reflecting regulatory decisions and legislation last year. That means that

$M_{1B}$ , which includes ATS and NOW accounts, was, in a sense, artificially inflated by that transition to ATS and NOW accounts. We were drawing money out of savings accounts into  $M_{1B}$ . We don't know precisely what that number is; we have to make an estimate: there is no way of actually isolating, statistically, what that was. But the "economically correct"—if I can put it that way— $M_{1B}$  number would be significantly less than that 8 percent if one took account of that transitional problem. We roughly estimated it at something like 7 percent.

Looking ahead, our targets are based upon the assumption there would not be any particular strong transitional movement into NOW accounts and ATS; they are based upon current legislation. We are also aware that legislation is before the Congress to extend NOW accounts nationwide and to provide authority for ATS to continue. If that legislation passes, as we mentioned in the statement, I think we would want to look again at these ranges and adjust them, because we would have another transitional problem. We would be drawing more money out of savings accounts into  $M_{1B}$  during this transitional period, so we would want to look very hard at that target and, I think, the implication is that for transitional reasons you'd have to raise it.

Similarly, we would lower the  $M_{1A}$  target, because some money would come out of the demand deposits in  $M_{1A}$ .

Now, having finished that technical explanation, we do feel that that figure is broadly consistent with the other targets that we have here, and that we do want to move toward lowering these targets. The upper end of the range is, of course, quite close to what I will call the economically correct figure of 7 percent last year; the midpoint is substantially below, and I think that reflects our intention to be moving toward lower figures in this area.

The great bulk of  $M_{1B}$  will continue to consist of the number for  $M_{1A}$ , and I think the  $M_{1A}$  figures are as consistent as our staff can arrive at at this point.

Mr. MITCHELL. Thank you. My whole point is that I think the planned rate of deceleration is extremely important. Because if you decelerate money growth too quickly, obviously, this pushes the economy toward a recession.

I have one other quick question. Do I have time, Mr. Chairman?

I was delighted to read, on page 8 of your testimony, where you stress that your objectives are to reduce unemployment and so forth, and spur productivity. Yet some decisions were made down the street recently to delay the implementation of the Humphrey-Hawkins bill.

The bill was in two prongs: One prong said we are going to get unemployment down; the other said we are going to curb inflation. Now someone in a serene palace somewhere made the decision that we will put off for 2 years the implementation of the unemployment goal of the Humphrey-Hawkins bill. Are you in agreement that it should be put off for 2 years?

Mr. VOLCKER. Let me say, first of all, Mr. Mitchell, that I do think these objectives have to go together. We are not going to get the unemployment objective if we continue to be plagued by accelerating inflation and inflationary psychology.

When I look at the practicalities of the situation, now, I must confess I share the doubts that the authors of that report apparently had as to whether it is really going to be possible to achieve the overall unemployment rate on the schedule originally set.

Now, let me emphasize that in saying that I do not know that the Fed judgment regarding unemployment is right; we are dealing, obviously, in an area of uncertainty. If our judgment is right, it is based upon a conviction that we can not get to that unemployment rate on schedule no matter what we do with monetary policy in particular.

If we had the kind of traditional automatic reaction—that is, a very expansive monetary policy—my conviction would be that that would generate more instability over the time period and within the framework of the Humphrey-Hawkins Act, and we would end up even further away from the unemployment objective.

Mr. MITCHELL. Thank you for your response. If I understand it correctly, you are saying that you are in agreement with the decision to put off for 2 years the implementation of the unemployment part of the Humphrey-Hawkins employment bill, if that is my correct interpretation.

Mr. VOLCKER. I think that is a recognition of reality.

Mr. MITCHELL. I must say that I am very disappointed and very sorry that you would be in agreement with that proposition.

The CHAIRMAN. Mr. Wylie?

Mr. WYLIE. Thank you very much, Mr. Chairman.

Mr. Volcker, I just came back last evening from my Lincoln Day recess in my district, around where people were congregated. And I must say that people were very mad and very upset about high interest rates and the high Federal discount rate.

But aside from the Fed's action on the Nation's money supply, the Chairman mentioned some other steps which could be taken to combat inflation. Do you think other actions can be a substitute for monetary discipline or, put in a little different way, how much effect can monetary policy have on our economy and on inflation? Can't it only rather kind of fine-tune?

Mr. VOLCKER. No; I would think, Mr. Wylie, it can have a profound effect. The real question that I tried to raise in this statement is what the accompanying difficulties and disturbances will be in achieving that result, and I think those do depend very crucially on what other policies are.

You suggest people are unhappy with the level of interest rates or with the discount rate. There is a real sense in which I am unhappy with it, too. But it is symptomatic of this inflationary problem, and we can't deal with the inflation by simply pouring out more money. I think it is absolutely essential that we do exercise restraint on the money supply. Now that doesn't mean higher interest rates, if we succeed in dealing with all the sources of the inflationary problem, and that responsibility comes back in large part to other economic actors.

If you are concerned about interest rates, for instance, I think you have to ask, "What is the Federal Government doing in terms of its own budgetary policies that has an impact on interest rates?" If we are running big deficits, that obviously, very directly, puts pressure on the credit markets. I don't think we can escape this problem by printing more money; that will only create more inflation and ultimately still higher interest rates. That is the cycle that we have been

in. We have more inflation and higher interest rates, and they go together; they are almost Siamese twins. So when we look at what is going on in credit markets, when we look at what is going on with interest rates, let us look at the culprit, which is inflation.

Mr. WYLIE. The culprit, which is inflation. But what causes inflation? Which comes first, the chicken or the egg?

You mentioned fiscal policy in passing there, for the first time that I detected this morning, and I tried to listen very carefully. Now, I realize that the Federal Reserve is an independent agency within the administration supposedly by statute. But I also know that as Chairman of the Federal Reserve Board and as a Presidential appointee, you can carry considerable weight within the administration as to policy and as to the policy apparatus.

In that context, I would hope that you would be more persuasive on fiscal restraint, on a policy of fiscal restraint. And I say that advisedly.

Prof. Paul Craig, who is a professor at Ohio State in my district, made a speech in my district when I was home in which he very dramatically said that if we don't care enough about stopping inflation now, our children will not live under a democracy. And Congress can do something about it.

How would you answer a statement like that?

Mr. VOLCKER. I think I would agree with the thrust of his statement. We have got to come to grips with this problem, and that is what we are trying to do at the Federal Reserve. But the process is going to go much more smoothly, much more rapidly, and we are going to get down to that unemployment rate much more quickly, if the other arms of policy are in tune with that objective.

Mr. WYLIE. Well, I have come to recognize a couple of realities, it seems to me, since I have been in Congress. And one is that an expansive fiscal policy is the root cause of inflation, or at least that is where I come out.

The second reality—and this troubles me—is that—and I would like your comment on this—as long as we have a Democrat-controlled Congress, we are going to have budget deficits and Government spending, and that it will rise as a percentage of the GNP. So in short, isn't talking about monetary policy something like whistling in the dark or whistling as we go past the cemetery, as we try to get our hopes up for our fiscal policy?

Mr. VOLCKER. No, sir, I do not think it is whistling in the dark. I simply come back to my basic point that I think we have no alternative but to maintain a policy of restraint on monetary growth. I think over time that will be effective in dealing with inflation. But the disturbances and difficulties will be greater to the extent that other arms of policy are out of tune. I think that is becoming more widely understood, and I really am not going to share your total pessimism about that process.

Mr. WYLIE. I don't want you to, and that sounded a little political. [Laughter.]

But I am very, very concerned about the direction of our fiscal policy.

The CHAIRMAN. I want to say to the gentleman from Ohio, Mr. Wylie, that I thrill to his call for a Republican Congress, and I want you all to know personally that I never would want to stand in the way of my friend Bill Stanton.



Mr. STANTON. Did you get that down? [Laughter.]

The CHAIRMAN. Mr. Fauntroy?

Mr. FAUNTROY. Thank you, Mr. Chairman.

Unfortunately, I have not had an opportunity to digest or read in detail your report. I would have liked to have had it a little earlier. But I do have one question going to the issue of wage and price controls.

Is it possible, Mr. Volcker, for the monetary policies you propose to really wring inflation out of the economy in a few years, without putting the economy into a recession and a deep one? If inflation does not begin to abate significantly in 1980 and with the projected spending for defense and the stockpiling of material that has already begun, and the obvious inflationary effect of that spending, do you think a program of mandatory wage and price controls might begin to make sense?

Mr. MacLaury at the Brookings Institution and Mr. Bosworth, have already begun to at least debate this with other economists. And since we are in this crisis climate, perhaps mandatory wage and price controls might be a means by which we can call time out from this basketball game that is running away with us.

Mr. VOLCKER. I am troubled by those comments, Mr. Fauntroy. I think there is a lot of wishful thinking behind that kind of comment, and I suspect that such suggestions only makes the problem more difficult, because the anticipation of controls of that sort tends to speed up the inflationary process.

Mr. FAUNTROY. We had better get over to the Brookings Institute and ask them please to stop suggesting things like that. [Laughter.]

Mr. VOLCKER. I would agree with that. [Laughter.] But I think you have to ask them just what they want to control and what control they would choose. Do we control the price of oil? Do we control the prices of all those commodities that are going up—prices that are an important component of inflation, but are set, in part, in world markets. Do we control the price of medical services when Congress has had difficulty in facing up to that problem?

In another context, do we control wages and then prices of manufactured goods, where in some sense there has been more restraint than in other areas of the economy? What kind of administrative problems do you have not only in formulating—which I am suggesting is very difficult—but in implementing that kind of a control program over any period of time? The problems are absolutely horrendous, and experience both here and abroad has not been in the least encouraging. And I would suggest to you that, after all is said and done, controls don't really deal with the basic causes of inflation; they don't represent any fundamental answer to the problem. If we did the things that are fundamentally necessary, controls wouldn't be necessary.

Part of the insidious—apparently, almost unavoidable—problem with controls is that people are led to believe that that is an easy answer, so they don't do the other things that are necessary. And if they don't do the other things that are necessary, you know that controls are doomed to failure. If we do the other things that are necessary, we don't need the controls.

Mr. FAUNTROY. By other things, do you include gas and oil rationing and credit allocation control? Are those the other things?

Mr. VOLCKER. The other things that I am thinking of primarily are monetary discipline, fiscal discipline, a look at some of those other programs I briefly alluded to in my statement that seem to me to tend

to ratchet up costs and prices over a period of time. Those things fundamentally give rise to the inflationary process, and it is those things that we have to deal with in the end. If we don't deal with them, this whole discussion of controls seems to me beside the point.

Mr. FAUNTROY. I must share the disappointment of my colleague Mr. Mitchell when, after reading your very incisive comments about the direction of unemployment in the country, the fact that there have been no significant changes in the past year and in spite, apparently, of your recognition that by the end of this year we expect to have 7.4 percent unemployment and 1½ million more people out of work, that you are prepared to delay the implementation of Humphrey-Hawkins.

Mr. VOLCKER. I am not so sure about that latter prediction. People have been expecting unemployment to go up for some time. I think most forecasters, almost all, said it was going to be 7 percent at the end of last year, and it was not.

But let me emphasize that my judgment is not that I don't think the target is desirable. It is a practical judgment as to what the probabilities are of meeting it in that period of time. I don't conceive that it is my function to suggest to you a target that may not be realistic; I don't think that would be a service to anybody. It doesn't mean that unemployment is not a serious social problem and that, in some sense, the name of the game in economic activity is to maximize production and minimize unemployment. But if you ask me for a practical judgment as to whether we should sit here today and look forward, realistically, to 4-percent unemployment in 1983, I regretfully have to tell you that I don't think that is realistic under present circumstances. In that sense, I can't object to the conclusion that the President reached in moving that target backward a bit.

Mr. FAUNTROY. My time has expired. But I would, at your convenience, like an assessment of credit allocation as a way of diverting funds into productive activity that might produce more jobs.

Mr. VOLCKER. If I could just deal with that question—

Mr. FAUNTROY. I don't want you to think that I am extending my time. Of course, you may answer, but I want to be responsible.

Mr. VOLCKER. Am I permitted to answer on somebody else's time? I would be glad to deal with that question. Again, I think that the first question you should ask in terms of direct controls over credit or credit allocation is, "What do you want to control at this particular point in time?" Classically, I suppose, what people have had in mind with that kind of an approach is putting higher downpayment requirements or shorter maturities on mortgage credit. Well, I would not judge that mortgage credit, in today's circumstances, is something we want to reduce further forcefully. Similarly, in the area of consumer credit, the one area of the economy that is rather depressed at the moment is the automobile industry. It is those big ticket items that are classically financed through credit, and I don't think there's any question that lending institutions, in general, are more restrictive on both mortgage credit and consumer credit than they were a few months ago.

Is the suggestion that is implied here that we should go out and put a lot more restrictions on consumer credit? In the area of business credit, do we really want to kind of come down with that kind of a sledge hammer and limit the use of business credit artificially through

this kind of control at this particular juncture? That is an extremely difficult thing to do administratively; if anybody has a lot of options, it is business. I think the attempt to try that kind of thing would lead to an explosion in demand as people tried to protect themselves against the control; it would turn out to be counterproductive. So again, I don't see much potential in that area.

Mr. FAUNTROY. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Neal?

Mr. NEAL. Thank you, Mr. Chairman.

Mr. Volcker, I would first like to commend you on your statement and your emphasis in the statement on fiscal restraint, monetary restraint and, certain structural adjustments that you recommend. I would have to agree with all that you say.

The irony to me is that, since Congress instituted targeting for money growth in 1975, the Federal Reserve has consistently promised to exercise constraint in the area of money growth. And the statements that we have gotten from the Chairmen of the Federal Reserve System since that time have urged and recommended almost the identical policies that you recommended this morning, and we all agree with them and so on.

But the fact is that the Fed has followed a policy of high monetary growth. Let us see. In 1976, it was about 6 percent; in 1977 about 8 percent; in 1978 a little bit over 8 percent; 1979, 8 percent again—all at a time when the economy has been growing at a rate between 2 and 3 percent. It just seems absolutely clear that we all share these goals, but when the time comes to implement these policies, for a number of reasons, it is very difficult. I don't mean to blame you for the policies followed by your predecessors. What I think, though, is, for whatever it is worth, that there is no single thing which would be more important to the health of this economy than for you to say and mean that you will gradually bring down the rate of growth in the money supply over the next several years.

You have said in your statement that this is your understanding of what Federal Reserve policy should be. But I am absolutely baffled why you will not go the next step and announce this morning a plan that lasts beyond the next few months. Why won't you go ahead and say that it is the intent of the Federal Reserve System to bring down the rate of growth moderately and slowly over the next several years?

And just in passing, I would like to say that I notice that your targets for the next year are between 4½ to 6 percent, something like that. And if you were to shoot for the lower range of that target and in fact achieve it, of course, that would bring about the very unemployment that several members of the committee have commented about. But of course, if you would maintain a relatively moderate reduction of the growth of the money supply, we should bring down the rate of inflation and increase the rate of employment.

I have two questions, Mr. Volcker. One is, why don't you go ahead and announce this long-range policy that would be so beneficial, I think, for our country? And will you also comment on whether you think that you have been following a policy of tight money over the last several months? The financial writers and a number of economists have said that we are following a policy of tight money, but it certainly doesn't appear to me to be excessively tight.

In other words, I believe the average has been over the last quarter, about 6 to 6½ percent, and the economy is growing at 1½ to 2 percent. I just don't see how that would be characterized as tight money.

Mr. VOLCKER. Perhaps I shouldn't try to characterize it in those adjectives. We do mean to restrain the growth in money and credit this year; we do mean to restrain it in the following years; and the general philosophy you have described I think is widely shared by the Federal Reserve Board.

We did have a discussion on the precise point as to whether we should, at this point, try to announce more precise numbers for future years. The general feeling was that it was not desirable to try to be that precise, that it would not add that much to credibility and performance, and that that precise number should be judged as time passes.

But I don't want that to detract at all from the general philosophy that you expressed and that is expressed in my own statement: That we must be moving our targets lower over a period of time if we are going to restore price stability.

Mr. NEAL. You see the problem, though, that someone like me has. We have heard the same comments for 5 years from people who are respected and, I am sure, mean what they are saying. Yet we don't see any consistent reduction in the rate of growth of the money supply.

Mr. VOLCKER. Let me say that I understand your source of concern. I don't recognize all the numbers that you used for last year. Last year we were pretty much on target: On one of the three targets, we were just above the upper edge; on the others we were more or less comfortably inside the targets that were set.

I think we ought to, in a sense, at least recognize that performance last year. The whole thrust of my report is that we aim to meet these targets we have set for this year. But the kind of question you raise only suggests to me a point that I already made—that we are going to have to earn the credibility. If the performance over a period of time—

Mr. NEAL. And how would you characterize the recent rate of growth in the money aggregates? Have we been following a tight money policy?

Mr. VOLCKER. I can make a neutral statement, I think, and say that the aggregates are fully consistent with the targets that we set. Relative to patterns that have developed in recent years, that is and does convey a sense of restraint on monetary growth; it is meant to convey a sense of restraint on monetary growth. I think I will just stop there.

Mr. NEAL. Well, my time has expired.

Mr. FAUNTROY [presiding]. The time of the gentleman has expired.

Mr. Leach?

Mr. LEACH. Thank you, Mr. Chairman.

Mr. Volcker, recently substantial concern has been expressed about the ability of commercial banks to recycle the enormous new hoards of petrodollars that are coming onstream. Rimmer de Vries with Morgan Guaranty and even David Rockefeller have indicated skepticism in this area.

How would you assess the seriousness of the situation, and is the Fed prepared to step in very strongly if the banks become overextended?

Furthermore, what alternatives do you envisage coming on the horizon in the near future to take up the slack should the commercial banks be unable to recycle petrodollars to the extent they have in the past?

Mr. VOLCKER. I think this is a potentially serious problem. These increases in oil prices are and have already been pushed to the point where they strain the capacity of the developing countries to manage their current account deficits and potentially constrain the capacity of the financing system.

So far as the Federal Reserve is concerned, we certainly recognize the need for American banks, in particular those that are under our supervision, to be prudent in this respect. That does not mean that they don't have the capacity to do some financing of developing countries, but it has to be done in a context of appropriate diversification of risks, appropriate measurement of risk against capital positions. I feel reasonably good about the fact that we have supervisory standards and practices in effect that can legitimately give us some reassurance on those scores.

American banks in the past few years have actually been more restrained as to growth in that kind of lending than they had been earlier; the percentage increases are smaller. Foreign banks have taken up more of the burden.

I also feel that for as far ahead as perhaps one can legitimately look in this area, there will be a capacity in the international financial system to deal with this problem in a prudent way, with the help of official resources that already exist or are in the process of being put in place. I am thinking particularly of the International Monetary Fund. It has not done much lending on net basis in recent years and has very considerable capacity at this point in time—and will have more capacity when the quota legislation is passed—to help supplement private resources in this area. And that is critically important, not only because of the volume of financing available through that institution, but because the surveillance that goes with that kind of lending is the best possible kind of assurance that the lending will be done on a sound basis.

Many developing countries have been successful in building up their reserves in recent years, and this gives some cushion for the immediate future as well. I would hope that, as time passes, we will get still better cooperation. I think there has been some progress in that direction between the IMF and commercial lending which will help put all this on a still sounder basis.

I don't want to suggest I see any immediate crisis here, but certainly as these oil price increases accumulate, the capacity of the system over time could be taxed. It is a serious problem as we look down the road, particularly because it is not now so easy to see how the present huge surpluses of the oil-importing countries—which have to be reflected in deficits elsewhere—are going to evaporate very quickly.

We don't just have a problem for 1980, but we have a problem that will continue beyond—

Mr. LEACH. In this regard, particularly in relation to foreign banks taking up part of the slack, do you see much prospect and do you support the notion of establishing capital ratios for Eurocurrency market operations?

Mr. VOLCKER. There has been a certain amount of discussion about adequate surveillance and supervision and regulation of Eurocurrency markets. One idea that has been rather prominent in those discussions is making sure that, in a sense, capital ratios are adequate and are enforced. I think that is an approach that is perhaps less relevant in terms of American banks, only in the sense that we already look at those banks as a consolidated whole: in the exercise of our supervisory authority, we look at their worldwide operations including their Eurodollar operations; we look at the diversification of their assets, the nature of their assets, and the relationship of their assets to capital.

But that has not been necessarily true in the case of all other countries. There has been a trend, which I think is a healthy one, to look at banks, wherever their home offices are located and domiciled, on a consolidated basis; and I would support and welcome that development.

Mr. LEACH. Thank you.

Mr. FAUNTROY. The time of the gentleman has expired.

Mr. BLANCHARD?

Mr. BLANCHARD. Thank you, Mr. Chairman, and welcome, Chairman Volcker.

First I have a comment. I mean it as a compliment, having sat through testimony of now three Chairmen of the Fed. I have to say that if Arthur Burns had advocated the policies you discussed, we would have probably had a lynch mob out in the hallway, but we are not doing that.

My guess is, it is not only because of our frustration and inability to deal with inflation, but also the high esteem in which you are held by your colleagues and the sincerity with which you present your views.

Having said that, I am curious as to what you feel the appropriate level on the Federal deficit would be this year, if you had control or you were able to determine fiscal policy here on the Hill.

Mr. VOLCKER. I haven't got a number for you to pull out of my hat. Let me say that I think the most important way we can judge fiscal policy is by whether there is a fair prospect that, under satisfactory economic conditions, we would be running a balance or a surplus.

I don't think we have that at the moment. The deficit that is projected for this current year, say, in the President's budget, does reflect his own conclusion and the conclusions of his economic advisers that there will be at least a mild recession this year and that that has semiautomatic and automatic budgetary implications.

I think it would be unrealistic and perhaps undesirable for me to give you a kind of a flip answer, to say that there should be a balance or a surplus this year under those projected economic conditions. But I would feel quite comfortable if we had a level of spending—not only today but projected out over a few years,—that was consistent with a balance or surplus when the economy is operating at a full level.

Now, I would also hasten to suggest a corollary to that. I do think it is terribly important that we do act to reduce the tax burdens that we put on investment in this country, and that we recognize there are other elements in the tax system which add to costs and detract from the performance of the economy. So what I would really like to see is the prospect of a balanced budget, consistent with some tax reduction. It is clear from what I've said that that takes a lot of expenditure restraint.

Mr. BLANCHARD. Regarding tax changes, I notice in your testimony you indicate that you don't see it appropriate for any kind of tax cut this year. But you now allude to the fact that there are some tax reforms that might be helpful.

Let us assume that we do have some form of a tax cut this year. What if it takes the fashion of revision of depreciation or perhaps some sort of credit on social security, both of which have been argued by many not to be as inflationary as a general tax cut?

What is your reaction to that?

Mr. VOLCKER. I can think of a variety of possibilities for tax reduction that would be highly constructive—you have mentioned a couple of possibilities—highly desirable.

I wish I were in a position where I could sit here and recommend those now. I am not, because of the budgetary situation. But I think that direction of thinking is appropriate. All I would say is, let us get the budget in the kind of shape that makes that kind of tax program possible.

Mr. BLANCHARD. Regarding your statement as to some of the other policies we can pursue to fight inflation, on page 10 you indicate that we can resist the pressures to protect industries from foreign competition, particularly those industries with relatively high wage structures and wage settlements which have been sluggish in responding to the changing needs of the American consumer.

I assume you mean the automobile industry. Is that right?

Mr. VOLCKER. I read something in the paper about the automobile industry and something about the steel industry as well.

Mr. BLANCHARD. I take that to mean that you feel that the complaint of the auto industry may be that they are being unfairly dealt with in trade matters is perhaps not accurate?

Mr. VOLCKER. I think an industry making that kind of plea, in a sense, has to come to court with clean hands—show they have done all that they can do to maintain their competitive position. I would have to raise that question with respect to those industries.

You have to ask yourself the implications for productivity and for inflation if every time an industry gets into trouble, we say, in effect: "OK. Your policies have been fine, and we're going to protect you from foreign competition."

Mr. FAUNTROY. The time of the gentleman has expired.

The gentlelady from Maryland, Mrs. Spellman?

Mrs. SPELLMAN. Mr. Volcker, since your program apparently means little relief, if any, on interest rates this year, and since the lack of affordable housing is becoming a very serious problem—

Mr. VOLCKER. Lack of?

Mrs. SPELLMAN. Affordable housing.

What would you suggest to head off a worse crisis in housing?

Mr. VOLCKER. I am going to give you an answer that I think goes to the fundamentals of this, Mrs. Spellman. Housing is going to be in a difficult situation unless we can come to grips with this inflationary problem. That has been the lesson of history: Housing does well in stable economic conditions; that we put the thrift institutions which do so much financing of housing in a strong position when we have an economic climate in which they can attract funds and when we have an economic climate that is conducive to lower, rather than higher,

interest rates. I think we are all deluding ourselves if we think that that industry is going to be healthy and prosperous in a context of continued or accelerating inflation. I think the fundamental point we have to keep in front of us is that the housing industry is the sufferer; they are the point men, so to speak, when we get into this kind of a problem we have now.

There are programs, as you know, that to some extent can ameliorate the rough edges in the housing market. Used prudently and consistently with the overall effort to deal with inflation, some of those programs can occasionally be useful. But they are not going to be strong enough or effective enough to go against the whole grain of the economic situation. If, in fact, we are faced with a generally accelerating inflationary situation, that is just inconsistent with prosperity in the housing industry.

I think there is a good deal of recognition of that in the housing industry, and certainly among the major lenders in the housing industry. A number of them have, in consulting with me, indicated the importance that they attach to dealing with this inflationary problem and getting it over with as soon as possible, because they recognize that it is in their own interests as well as in the country's interest.

Mrs. SPELLMAN. They have understood?

Mr. VOLCKER. Pardon?

Mrs. SPELLMAN. You are saying they do understand?

Mr. VOLCKER. I think increasingly, yes.

Mrs. SPELLMAN. I'd like to meet some of them. [Laughter.]

Mr. VOLCKER. I do not think that that understanding is perfect in all sectors of the industry. [Laughter.] But I do think that when you have a chance to talk with them about it, there is a recognition of the underlying problem—increasingly.

Mrs. SPELLMAN. You know this whole question really moves right on through society. With the lack of housing available, the apartment rentals go up. Over and over again, we see that. It is just a vicious cycle.

Mr. VOLCKER. There is no question of that. It is symptomatic of the difficulties we have gotten ourselves into. It obviously doesn't make me happy. I guess all I can say is that we are trying our best to create conditions in which housing ultimately will prosper.

Mrs. SPELLMAN. In this list of things we might do, which you gave us today, I noticed that the very first one dealt with energy.

Does that mean that you feel that energy is the most insidious element in our inflation?

Mr. VOLCKER. It is the most important single factor, certainly. I don't want to blame our whole inflationary situation on energy. Quite clearly, it goes beyond that.

But just take recent developments. These recent increases in the price of oil have been extremely disturbing, I think, to the prospects of dealing with this problem in the most orderly kind of way. They have generated new inflationary concerns, for obvious reasons. At the same time, they divert a lot of purchasing power from American consumers and make even more difficult the problem of economic adjustment. If we are going to face that kind of repetitive situation, we would have to despair at how we can deal with the dilemmas and problems that we face.



So, I do think, that it is a very high priority matter to get our energy situation and our energy consumption in this country moving in a direction that frees us, to the extent possible, from, in effect, being hostage to this external supply of energy.

We can't achieve that completely, and we are making a little progress. But the more forcefully we can move in that direction, the more stability, I think, we can look forward to in the future. Otherwise, the problem is going to sit here plaguing us year after year.

Mrs. SPELLMAN. There are two factors connected with energy that I wanted to ask you about. One, could you do anything about the excess profits that oil companies are gathering today? And, second, would you call for gas rationing?

Mr. FAUNTROY. With those two questions, the time of the gentlelady has expired, and you may answer for the next 10 minutes. [Laughter.]

Mr. VOLCKER. Mr. Chairman, I will not give a 10-minute answer to those questions. The question of the windfall profits tax, of course, has been debated for how many months in the Congress? I don't think I have too much to add to that debate, frankly.

My understanding has been that that is pretty well completed in the Congress; it is part of a larger question of the decontrol of oil prices and the rest. So far as the rationing question is concerned, I suppose that is one way of going about it. Whether that is a way that really offers any permanence, whether that is a way that the American people would find tolerable over any period of time—I suppose we all have some doubts about that. I think there are other ways of going.

Mrs. SPELLMAN. Thank you, Mr. Chairman.

Mr. FAUNTROY. The time of the gentlelady has expired.

The Chair recognizes the gentleman from Delaware, Mr. Evans.

Mr. EVANS of Delaware. Thank you, Mr. Chairman. And Mr. Volcker, thank you, sir, for being with us. Let me congratulate you on your courage and let me say, don't abandon the fight of Professor Friedman and the staff of the Domestic Monetary Policy Subcommittee, who have indicated that it probably takes about 2 years of monetary restraint to have any substantial impact on inflation. I think that is a figure that we could probably debate. But I do congratulate you and hope that you will continue that fight.

You said on page 3 of your opening statement that, "dealing with inflation has properly been elevated to a position of high national priority," and then you go on on page 8—it almost sounds like a page out of the general prayer of thanksgiving in the Episcopal Prayer Book—all of us must show, "not just in our words, but in our deeds, that the fight on inflation is in fact of the highest priority." [Laughter.]

Looking at the budget for fiscal year 1980 and looking at the fact that we are approaching a \$29-billion budget deficit, as projected by the administration, the fact that Alice Rivlin of the Congressional Budget Office indicated that that was unreasonable, that there would be a budget deficit of about \$40 billion, is the \$16-billion projected budget deficit for fiscal year 1981 realistic?

Mr. VOLCKER. I think whether it is realistic or not and whether those prayers will be answered, I was brought up in the faith and I think the prayers are sometimes answered—

Mr. EVANS of Delaware. You have to believe.

Mr. VOLCKER [continuing]. Is as much in your hands as anybody's—your hands meaning Congress!

As I look at that budget, I think I recognize what I would call certain vulnerabilities. [Laughter.]

Whether those vulnerabilities——

Mr. EVANS of Delaware. I would like to comment, Mr. Volcker.

Mr. VOLCKER [continuing]. Come to pass or not, I think does depend upon the restraint that this Congress shows as that budget winds its way through the Congress. I would be more worried about the expenditure side; I think that is the critical variable here. Any projection of receipts is heavily weighted by what one's particular assumption happens to be on the performance of the economy. I certainly do not like to contemplate the idea of still more taxes, when taxes are already projected to rise to a record level.

Mr. EVANS of Delaware. Well, Mr. Volcker, do you think restraint has been exercised on the expense side? Do you think expenses have been properly projected?

Mr. VOLCKER. You say "properly projected." I don't know how to answer that question.

Mr. EVANS of Delaware. The reason, sir——

Mr. VOLCKER. You have made certain assumptions.

Mr. EVANS of Delaware. Yes, sir.

Mr. VOLCKER. Whether all those assumptions will come to pass is the question.

Mr. EVANS of Delaware. That is all we have to look at: The budget as it is presented to us. It seems to me that the \$16 billion budget deficit is based on some false assumptions as far as expenditures are concerned. When you look at the Department of Defense, they project the cost of energy on the basis of the cost, I think, in August 1979, in September 1979. The cost of energy has gone up substantially. They projected close to \$1 billion savings in hospital cost containment. That bill didn't pass.

Go ahead, sir.

Mr. VOLCKER. Precisely. Let me take that second point. I don't want to pretend to a degree of expertise that I don't have with respect to every assumption made in the budget about energy costs and all the rest. But I think the hospital cost containment bill is a good example of what my concerns are.

When I look at that I wonder, just as you do, whether that is a fair assumption or not. But that is an assumption which is in the hands of the Congress; and you can make it come true. If you don't make that one come true, you can make some other ones come true. I would hope that you would make some of those assumptions come true.

Mr. EVANS of Delaware. Well, sir, I hope perhaps some of my colleagues will follow my pattern in exercising restraint, because I think it is important to get at the inflationary spiral that we are in.

I only have 5 minutes. Let me ask you a couple of quick questions. You had indicated that beyond the broad decisions about monetary and fiscal policy, there are some areas that we can deal with now, regulation being one, a cost-benefit approach, analyzing and assessing the costs as well as the benefit and looking at the balance, avoiding a Smoot-Hawley approach to overprotection that was one of the factors that got us into the Depression in the early thirties, and a number of other areas.

Then you say to revise legislation that tends to ratchet up wages at the expense of employment. You don't specifically refer to legislation, to specific legislation or regulation, and may I say that there's a very appealing advertisement: When E. F. Hutton speaks, people listen. I think when you speak, Mr. Volcker, people do listen. And I think it would be important for you to specify some of those areas of legislation that we might revise.

Mr. VOLCKER. What I have in mind are two or three things, Mr. Evans. I don't think any of them will be a great surprise to you.

The Federal Government has legislation that tends to, I think, not only put a floor on wages, but to ratchet them up in some areas: In the construction area and in purchases of other goods and services. I was struck by an experience at the Federal Reserve Bank of New York not so long ago, a year or two ago. We in New York and at other Federal Reserve banks had been quite successful in introducing competitive bidding into our armored car contracts and, during an inflationary period, the result was that we were actually experiencing reduced costs, and we were getting more people interested in the service. We are a very heavy consumer of that service; we were getting new companies formed. And then one bright day there was a determination that the Federal Reserve banks were subject to something called the Government Services Contract Act. The Government Services Contract Act says that Government contractors have to pay some determination of prevailing wages, which typically comes out, in relative terms, at a rather high union wage scale. The threat was that the new contractors we had induced to provide that service would either be driven out of business or would have to raise their costs, and the potential for higher costs in that particular example were very substantial throughout the Federal Reserve System.

I raise the question whether that is appropriate governmental policy during a period of high employment, of generally rising wages—to curtail the ability of Government instrumentalities to get their services at prices that are available in the competitive market. That's one kind of example.

The Davis-Bacon Act, the Walsh-Healey Act need to be looked at. Another area in which there has been a great deal of study by economists in recent years is the minimum wage. There are very serious questions not only about the level of the minimum wage, but the way it is applied to people coming freshly into the labor force, with the end result that fewer people are able to find jobs at entry levels and that further pressures are put on the cost structure. So this is destructive both in terms of the inflationary problem and the acute social problem we have of finding jobs for the most disadvantaged and least experienced workers.

It doesn't seem to me to be beyond the wit of man—even retaining the general concept of minimum wage legislation—to provide some kind of intelligent relief for the youth area of the job market that would move toward several objectives at the same time.

Mr. EVANS of Delaware. Mr. Volcker, thank you. My time has expired. Just let me say in 10 seconds, I think that much of the legislation and the regulations are counterproductive to achieving the objectives and the goals that we want to as far as employment is concerned.

Thank you, Mr. Chairman.

Mr. FAUNTROY. Thank you. The time of the gentleman has expired. The gentleman from Oregon. Mr. AuCoin?

Mr. AuCOIN. Thank you, Mr. Chairman.

Mr. Volcker, I want to extend my greetings to you today as well. Once, when Arthur Burns was testifying before the committee, I sat and listened for about 45 minutes or maybe even longer before the questioning finally came to me, on the lowest of the low row in my first term in the Congress. And I was struck by the fact that Dr. Burns, in his wisdom, possessed this incredible sense of certainty in everything he said before the committee.

It was almost as if he felt, the way he gave the impression, that he had never made a mistake in terms of the kinds of considerations that you are going through now on monetary policy and all the rest.

My opening question to him was: Looking back on the time that you have been at the Fed, Dr. Burns, have you ever made a mistake in terms of high interest rates, tightness of monetary policy, and the rest? I think it surprised him, because it took him a few minutes to answer, and I had never seen Dr. Burns quite so slow in responding before. What he said was that if he were to name a time in which he felt that perhaps the Fed had erred, it was at the time of the explosion of foreign energy import prices, at which time the Federal Reserve had embarked upon a very strict tight monetary policy, with high interest rates following them. He felt in retrospect that that helped to bring about a very sharp recession that caused some considerable damage to the economy—a statement of great candor, I would say.

What I am concerned about is, at a time of extremely high energy prices, even though they have not hit us with the shock that they did in 1973 or 1974, what the Fed is doing in practicing the same kind of old-time religion on monetary policy and high interest rates, what the Fed is doing in preparing for perhaps another rapid, sudden increase of energy prices, so that the same problem does not return? If we should have a high, sudden increase of energy prices today from the OPEC countries, given the base price we are dealing with right now, I would think it would be devastating. And I am wondering whether the Fed is contemplating—what it contemplates when it thinks about its own monetary policy.

Is it prepared to loosen the money supply? Is it prepared to follow up a posture that would lower interest rates under those conditions? Or would you continue to march along the route that you are marching, regardless of what happens to the prices on that front?

Mr. VOLCKER. That contingency is one that I cannot speculate on, because I think if, on top of these price increases, we got another kind of comparable increase, it would be devastating, and we haven't got any good options.

One thing I would be sure of is that with that kind of fresh, enormous, additional impetus to inflation—which I am not at all projecting—we are not going to get lower interest rates. You can't get lower interest rates in that kind of an inflationary situation, in my opinion.

As I look back over history, the kind of persistent error that has been made—and I think you can take it for granted that those in the Federal Reserve are human, that all humans err, and therefore that the Federal Reserve errs along with others—the persistent bias, if I can put it that way, in public policy generally has been to be excessively expansionary or insufficiently restrictive, and that is what

has given rise over a long period of time to the inflationary problem that we have had, with the result that the performance of the economy—productivity, employment, unemployment—are less satisfactory than they used to be. You get the inflation and, partly because you get the inflation, you get an unsatisfactory economic performance as well.

But there's a great temptation—an understandable temptation—in whatever period you are in—including periods of expansion—to say, "The major risk is that something is going to happen to the economy, and maybe we will have a recession, and that will be terrible." So we lean over backwards to avoid it.

In the process of leaning over backwards all the time, we fall into the opposite problem—we have come kind of face to face with the opposite problem now—where we end up, in a sense, with the worst of both worlds. We end up with the inflation, and the inflation—because of all the instability and uncertainties and all the distortions it generates—aggravates the other problems. So we end up with a situation where capital spending is not really adequate to our needs, productivity is actually declining—it declined by 2 percent last year—and we are not even in a recession period.

Just in terms of your oil price example, I don't think you can take the view that what goes on with oil prices, is entirely independent of the inflationary circumstances in the world and in the United States. We wouldn't have faced quite the same energy problem, I suspect, if we didn't have this inflationary problem.

So what we have really got to do is find a way of dealing with this inflation. And it is very hard; the actions I suggest are not the easiest ones in the world, I suppose, politically. All I would suggest is that the alternatives are worse if we really understand the situation.

Mr. AU COIN. I agree with you, that is what we really have to do. What I really have to do is find some way to ask all the questions I came to ask you in the 5 minutes that I am allotted. [Laughter.]

Mr. FAUNTROY. Would the gentleman please forgive the chairman, and I yield to you as much time as you may require within the next 30 seconds. [Laughter.]

Mr. AU COIN. I would like to ask Mr. Volcker one question. If the budget were balanced today, what kind of a dent would that make on the rate of inflation? I ask that question because you have responded to this committee about the charge and the responsibility of the Congress to exercise fiscal discipline, so that monetary policies of the kind you've had to invoke aren't so necessary. But what impact would it have?

Mr. VOLCKER. I think that would make a real dent in inflation looking ahead a year or so, a very real dent. You would have much lower interest rates.

But you talk in terms of a hypothetical situation; I don't think it's really possible to have a balanced budget right now. Indeed, if somehow it could be conjured up by a massive increase in taxes or a massive decrease in expenditures, the short-term effects on the economy would be very difficult to contemplate.

But, you know, that is not the practical alternative we face. The real alternative we have is, I think, dealing with that inexorable rise in expenditures that we have been having, confining it, getting those expenditures in line with the real tax-collecting potential not only of

the present tax system but of a tax system that allows for some of the reductions that I have been talking about. That is not a job which can or, in some sense should be accomplished in 1930, but it is certainly a priority matter, looking out over the next couple of years.

Mr. FAUNTROY. The Chair now yields to the gentleman from Indiana, Mr. Evans, with the question that the 5 minutes is inflating rapidly.

Mr. EVANS of Indiana. Is the chairman intending to recognize all of the remaining members for 5 minutes?

Mr. FAUNTROY. That is true. Of course, the 5 minutes is inflating.

Mr. EVANS of Indiana. Right. I would hope we would have the 5 minutes throughout the run of the various levels of this committee. But we will try to adhere to that down here. [Laughter.]

In your statement, Mr. Volcker, you mentioned in concept, policies to wind down inflation have wide support. How would you characterize up to this point the political support that the Fed's policies from this past October have been receiving?

Mr. VOLCKER. Very high.

Mr. EVANS of Indiana. Do you think that type of support will continue throughout the business community as we enter the next several months, especially in the areas Mrs. Spellman had mentioned of the housing industry in this country? Or do you see there is some erosion beyond just the residential construction sector of the economy?

Mr. VOLCKER. I did not mean to suggest by my answer that there are no complaints from the housing industry; that is obviously contrary to the fact.

Mr. EVANS of Indiana. I just wonder, how much further is that going to spread in the coming months?

Mr. VOLCKER. I really do believe that the importance of dealing with this inflationary problem has assumed a higher priority in people's thinking right across the country. I think there is lots of evidence of that. That doesn't mean that when particular measures bite on particular sectors they are very happy. Perhaps the measures haven't bitten all that much so far.

But I do think that there is not only a recognition of the importance of dealing with inflation, but also that people grasp the commonsense notion that the amount of money you print has something to do with inflation in the long run and in the not so long run. Our policy is increasingly understood in those simple terms, so I am hopeful that a high degree of support will continue.

Mr. EVANS of Indiana. Thank you, Mr. Volcker. And Mr. Chairman, I will yield back the remainder of my 5 minutes.

Mr. FAUNTROY. You are so very kind. That is 3 minutes you have yielded back.

I yield now to the gentleman from Texas, Mr. Paul.

Mr. PAUL. Thank you, Mr. Chairman.

Mr. Volcker, in the last several months we have had tremendous gyrations in the price of gold. I am anxious to get your comment on this and what it means to you.

If the policy of the United States has been, and continues to be, to demonetize gold, what do you think should be done with the gold? If it has been truly demonetized, should it not be the prerogative of the Congress rather than the Treasury to deal with this commodity?

If we do retain it, should we retain it for strategic reasons or for possible monetary reasons in the future?

Mr. VOLCKER. Let me say, first of all, I think the activity in the gold market is a reflection of the uncertainty that exists about inflation in our future, both economically and, more recently, politically.

It is an unhealthy sign. It feeds back on to inflation psychology generally and makes our job more difficult.

In general, I feel that the gold stock that we have, which is substantial, should be available for use for sales when and if that seems appropriate in terms of our economic objectives. I think we are a long ways from holding just an amount of gold that might be considered necessary as kind of a strategic national stockpile, and I think it is appropriate that the Treasury maintain flexibility in that connection.

Mr. PAUL. Mr. Volcker, in your report, you showed concern that we are dependent on outside sources of energy and thought that it would be to our benefit to be less dependent.

My understanding of your statement is that this, then, would help curtail inflation.

How do you harmonize this with the fact that other countries such as Japan have essentially all their energy come from outside sources, and yet they do not suffer the serious consequences of inflation as we do?

You have emphasized so well the problem of excessive expansion of money and credit. Do we really have to confuse the matter by talking about energy independence?

Mr. VOLCKER. The energy problem and the increase in energy prices has certainly created problems for Japan and every other country. But I think your point is well taken—that we cannot say that our entire inflationary problem derives from energy or that, in some sense, that is the core of the problem. It is an extreme aggravation; there is no question about that.

But the overall policy posture through a series of years, and specifically including monetary policy, I think, has to be looked to as an answer for the inflationary problem.

I do think, given that we are such a large importer of energy, that what we do in terms of conservation and reducing our own dependence is extremely important to the worldwide market for energy, and all countries will reap the benefits of more stability in that market if we can achieve it.

Mr. PAUL. So you would choose not to limit the definition of inflation and the attack on inflation to that of controlling the excess expansion of money and credit? You would like to make it broader than that.

Mr. VOLCKER. Oh, yes. I think the expansion of money and credit is an absolutely essential part of the program. But, again, that will be easier or more difficult in terms of our other objectives as we attack other sources of inflation, and energy is the prime example of that.

Mr. PAUL. Do you think that we should consider looking at the Credit Control Act of 1969 and possibly repealing that act?

Do you think it is necessary that we have it? And also, before my 5 minutes runs out, I was interested to know whether or not you still were interested in considering making a 3-cent piece?

Mr. VOLCKER. I don't think it is necessary to have that act.

So far, I can't really claim that I have given hard thought to a 3-cent piece; it seems like rather an odd number. [Laughter.]

Mr. FAUNTROY. The time of the gentleman has expired. The gentleman from New York, Mr. Lundine, has kindly consented to yield his place at this time to Mr. Ritter, who has a time scheduling problem.

The Chair recognizes Mr. Ritter.

Mr. RITTER. Thank you, Mr. Lundine, and thank you, Mr. Chairman.

Mr. Volcker, could we get some idea—

Mr. VOLCKER. Where are we? [Laughter.]

Mr. RITTER. Could we get some idea of your opinion on the various spending limitation proposals before Congress? There is a proposal to constitutionally reduce the budget of the Federal Government from the total GNP.

Would you like to see some form of spending limitation legislation enacted?

Mr. VOLCKER. I can only give you a kind of preliminary answer to that one because, in general, I suppose my distinctive bias in approaching these questions is against putting in the Constitution that kind of rigidity and specific limitation.

Mr. RITTER. What about legislatively?

Mr. VOLCKER. Legislatively, I think it may be a good idea. But I recognize that what the Congress does legislatively, it can overturn legislatively in its next action.

Let me just say—

Mr. RITTER. It doesn't happen very often.

Mr. VOLCKER. In terms of the importance that I think this matter has, despite my instincts, I begin wondering whether some extraordinary action is—

Mr. RITTER. In other words, you talked about fiscal discipline, but it is a discipline that involves shared ground rules. We need an overall restraint rather than one or two Congressmen going out on a limb and saying to people in their district that the Federal money machine can't produce for us because we are trying to hold back on spending while a neighboring legislator milks the system.

We need this kind of umbrella, all of us, regardless of party.

Mr. VOLCKER. I can see the argument, I think, in the abstract—that you can vote for the general limitation and then you are forced to put your specific actions within that framework. And it is the specific actions that, of course, are the difficult ones.

I would not want to close off all consideration of every option in that area.

Mr. RITTER. It sounds like you are favorably disposed toward some kind of discipline to impose a spending limitation on the gross national product that the Federal Government can take out of the economy.

Mr. VOLCKER. I find myself coming to that point, even though I have not seen any specific legislation that makes me entirely happy.

Mr. RITTER. At what stage in our economy do we try to stimulate productivity through the tax structure?

How long do we have to fight inflation before we get to the point where just about everyone, Republicans and Democrats alike, realize the idea that supply is important and productivity is important? The tax code in this country opts against these key factors as opposed to our competitor nations. Our current system opts against savings, opts against investment, opts against putting away for the future productive capacity.



And it seems to be pretty much accepted.

How far down the road do we have to be?

Mr. VOLCKER. You point to an extremely difficult dilemma. I would love to see those kinds of supply oriented actions taken, but I fear that if they are taken at the expense of a big loss of revenue in the short run, given our present spending posture, the result will not be constructive, but destructive, because the inflationary effects will offset the potentially constructive effects.

Mr. RITTER. Do you see that congressional spending is the primary and principal other action outside of your own monetary task?

Do you see that as the prime responsibility for America to fight inflation.

Mr. VOLCKER. Yes. I think it is fair to say that to make room for the kind of action that you describe, particularly, and that I think would be highly salutary, we need that spending prerequisite.

Mr. RITTER. Thank you, Mr. Chairman.

Mr. FAUNTROY. Thank you. The gentleman from New York, Mr. Lundine.

Mr. LUNDINE. If I would have known that you were going to ask those questions, Mr. Ritter, I wouldn't have yielded. [Laughter.] I am deeply distressed with the record, albeit, somewhat explainable by cyclical trends, where, as you report, we had a 2¼-percent decline in productivity in the nonfarm business sector last year.

Your charts on page 35 of your report are interesting, showing compensation per hour remaining fairly steady, but output per hour having declined rather dramatically and unit labor costs having increased rather dramatically.

Now I fully understand your answer to the last question, but it seems to me that this whole battle on inflation is doomed if we are going to concentrate exclusively on the demand side by tightening down the screws. It hasn't worked in the past, in the seventies.

And it seems to me that unless we can turn around that productivity growth decline, that we have experienced since 1968 or 1969, or unless we are willing to accept a substantial decrease in our standard of living, just fundamental economics tells us that we cannot succeed.

And I am concerned that you are counseling, as I understand it, that we should not go forward toward additional stimulus for capital formation at this time, that there is not much we can specifically do about productivity other than removing regulatory burdens which impact on productivity as much as they do generally influence inflation.

You seem to take the same attitude as the administration in their annual economic report. Having noted that productivity has declined, they more or less shrug their shoulders and say, it is unfortunate, we are going to have to learn to live with it.

And I don't accept that at all.

Mr. VOLCKER. I don't accept that, either, if I may just interject.

Mr. LUNDINE. Good. What can we do, do you think, then, to positively make a turn around in that kind of productivity performance?

Mr. VOLCKER. Again, it is only a question, I think, of getting the sequence right.

First of all, I agree with the comments you make about the basically devastating impact of this trend in productivity shown on that chart. And it greatly complicates the problem of dealing with inflation for the very reason you suggest. We are not going to have a real increase in

living standards unless we increase productivity, because that is where it comes from; there's no other place that it can come from over time.

At the same time, I think we have to understand that productivity trends are rather deep-rooted. There is no magic way we can suddenly get an increase in productivity above what it would otherwise be, almost regardless of what we do in the short run.

But the kind of measures that I infer, at least, from your comments, I think are important, and I would like to see them done just as soon as possible. Now that gets into the question of what is possible and what is possible right now, and I have already indicated what I think is the prerequisite for that action.

I suspect we can both agree that in the current context, the worst thing that we could do is kind of give away tax revenue in a way that isn't directed towards this problem. That would just put off the day even further for making a constructive attack on this problem. So let us get that out front as the No. 1 priority.

We don't want a simple purchasing power tax program, a tax rebate, or something like that, which would undermine the budget and not attack this underlying problem. And I would agree with you, just as soon as possible, let us get in a position to make changes to improve capital formation. I do not think that we can afford to take the risk of delaying progress on inflation because I don't think that we are then going to get the results that you and I would hope for.

MR. LUNDINE. Well, let us take one example of an idea that no doubt will be debated around here on capital formation of accelerated depreciation.

As you well know, we have one simple rather dramatic change that is proposed, the Jones-Conable approach.

It strikes me that there may very well be a less far reaching, but somewhat effective, means for allowing a business that invests and reinvests in capital equipment to fare relatively better than it does under present law—some way of recognizing the fact that the useful life economically of equipment today is far different than the useful life in terms of its capacity to be productive in any sense.

Do you have any thoughts as to whether such a measure or perhaps some version of that kind of proposal would, in fact, be helpful in stimulating productivity?

MR. VOLCKER. It seems to me one of the leading candidates that should be considered. I know various ways of tackling this investment problem, but that is among the good ways, it seems to me.

Also, taken in its unvarnished form anyway, it is a big revenue loser over the years, which is precisely the problem; we have to have the spending side of the budget in shape to a degree that we can say, "Now is the time to go ahead."

That is my only point of disagreement.

MR. LUNDINE. Finally, one of the problems with productivity, it seems most people who analyze it would agree, has been our lack of innovation.

Traditionally, a lot of our innovation has come from small businesses. I am concerned and wonder if you could just make any general comment about the undue impact of the high interest rates which we have experienced, and it appears that we will experience for sometime, on these kind of small businesses that have trouble getting their financing. In addition to that, of course, these small businesses have been virtually cut off from any equity financing in the last few years.

Mr. VOLCKER. Let me just mention the last point. The performance of the equity markets for a good many years has been another of those symptoms of our unsatisfactory economic performance, and, again, in a broad sense, it certainly seems to be affected by the kind of problems that inflation creates. As to the small business problem in general, I share the feeling of concern that you have expressed. At the same time, I want to recognize there is relatively hard data in this area. We are making some effort to get a little more facts—it is not going to be a perfect effort—about just what lending and other terms are for small businesses.

Many of our statistics come from big banks and, of course, the small business needs are taken care of by smaller banks. It has been kind of an elusive area through the years, and I don't think that we have adequate information for making as confident a judgment one way or the other as I would like.

My impression is that many banks have been conscious of that problem. I suspect the evidence would show—but I am not in a position to give hard statistics about it—that interest rates, at least for small businesses, have gone up much more rapidly than for big businesses because there has been some conscious effort, I think, in appreciation of their own long-term interests, for banks not to make it impossible for that kind of business to proceed.

The longer we stay in this kind of a period, the more difficult it is to shield the impact on small businesses which, to my mind, is somewhat like the housing situation. If we are worried about this kind of thing—which we legitimately should be, for the very reasons that you suggest, and others—we have got to recognize that a distorted inflationary economy is not the best environment in the world for this kind of financing to proceed.

Mr. FAUNTROY. The time of the gentleman has expired.

The gentleman from Nebraska, Mr. Cavanaugh.

Mr. CAVANAUGH. Thank you, Mr. Chairman.

Mr. Volcker, I am impressed, given the general conservative and cautious and even to me at times obscure nature of your presentation, that the one particular in terms of fiscal policy that you have selected out to be rather clarion about in bringing to the attention of the Congress is the matter of the danger—the fiscal danger and economic danger that we face by extremely large increases in our defense expenditure.

On page 2 of your statement and then again on page 9 of the report, you state, for example:

Let me say, for example, it must be recognized that any substantial increase in defense spending beyond what is already contemplated in the administration budget could significantly alter the economic outlook. The lag between authorization and actual federal outlay may be quite long in the case of military hardware, but its expectational impacts on employment, production, and private spending can emerge fairly quickly.

Now I take that to mean that significant increases above what the administration has proposed—and there is a great clamor for that now in terms of defense spending—would have both an immediate adverse economic impact as well as a long-term burdensome fiscal impact.

Now I don't take your comment to be a judgment on the policy considerations and the national security needs of this country, but rather as a warning or at least an exposition to the American people

that the price will have to be paid in terms of inflation and tax burden to sustain new defense expenditures of a major scope.

Is that an accurate understanding?

Mr. VOLCKER. That is absolutely correct, Mr. Cavanaugh. I think we ought to spend on defense what we must spend on defense. That judgment has to be made in a national security context, and nothing I have said should reflect upon the priority of that decision. On the other hand, as you suggest, we have to recognize that it has some consequences. I must say I have no evidence that defense spending is going to rise appreciably more sharply than suggested in the President's budget, and I think it's easy to exaggerate the short-term impact of that in the context of the total economy. Nonetheless, it is another factor—just in terms of the budget impact—that only makes more pointed, I suppose, my concern with restraint on the whole.

Mr. CAVANAUGH. A second area that I am interested in is your comments on consumer purchasing and activity. And on page 1, you state:

One of the most critical questions is whether consumers, faced with lower real incomes and expecting higher prices, will continue to spend an extraordinarily higher percentage of their income despite heavy debt burdens and reduced liquidity. Purchasing power is again being absorbed by sharply higher oil prices, and there is no assurance that this process will quickly come to an end.

Yet in this morning's Wall Street Journal there is a commentary that unnamed economists in the administration and apparently in the Fed have no enthusiasm to implement the authorities of the Credit Control Act and, in fact, comments that the Credit Control Act is unworkable.

I take it from your testimony that in spite of your observation that consumer debt is among the most critical factors that we face in dealing with inflation, that there should be no official action to curtail it in a direct way.

Mr. VOLCKER. That is right.

Part of the thrust of what I am saying—and what makes economic forecasting particularly difficult at the moment—is the suspicion that without the kind of controls you are suggesting, consumer spending might drop rather suddenly, sometime.

Now the reason forecasters went wrong last year—at least, the principal reason they went wrong—is that they were not anticipating that consumer spending would be maintained at the high levels it has at the expense of savings. In the long-run context, that low rate of savings is unhealthy; no question about it.

On the other hand, one sits here and wonders about whether there will be a sharp adjustment. As I suggested earlier, looking at the two industries that I think are most directly dependent upon the use of credit by individuals—the housing industry and the automobile industry—I think we can say that both of those industries are already in a period of adjustment.

Mr. CAVANAUGH. But you recommend no further action by the Government or the Executive to control consumer credit?

Mr. VOLCKER. No.

Mr. CAVANAUGH. Thank you, Mr. Chairman.

Mr. FAUNTROY. Thank you.

The gentleman from Minnesota, Mr. Vento.

Mr. VENTO. Thank you, Mr. Chairman.

Mr. Volcker, welcome to the committee. It is the first time we have had a chance to hear from the distinguished new chairman before this committee, as I recall. In any case, there are a lot of economists, and if you sit them all on the ground, they all point in different directions. At least that has been my experience. But obviously, those who work in your job have somewhat more impact in terms of policymaking than others.

Mr. VOLCKER. If I may just interject, they were all pointing in the same direction last year. It just happened to be the wrong direction. [Laughter.]

Mr. VENTO. Well, they go in different directions.

In any case, today in the Wall Street Journal there is an article called "Price Production Data Arrives. Feared Slump May Be Averted." Reading further, the article states:

With inflationary pressures continuing to raise the possibility that the economy might avoid a recession this year, it has begun to worry some government policy makers.

My question is, How long do you think that Government policy-makers will tolerate a prosperous economy? [Laughter.]

Mr. VOLCKER. In one sense, you can call this economy prosperous. In another sense, it is an economy that is rife with problems and distortions. We were just talking about one of them, the consumer spending area. I think it is unhealthy over a period of time to have a savings rate as low as it is, because it feeds back on our investment problem in the long run, and I would have very mixed feelings about the extension or prolongation of that kind of savings rate.

Mr. VENTO. I suppose that one might also observe the differential between the cost of borrowing and what is responsible for the borrowing and the inflation factor and why people don't save.

In any case, let me look at one of the controls that the Federal Reserve has used.  $M_{1B}$  is a concept that includes all transaction account money in depository institutions. If based on that definition,  $M_{1B}$  went for quite a roller coaster ride in 1979.

Under your new procedures announced October 6, can we look forward to better control over, for instance, this newly defined  $M_{1B}$  money or not?

Mr. VOLCKER. I think  $M_{1B}$  is a little confusing in that respect, Mr. Vento, for the particular reasons I suggested earlier. I don't know for sure what Congress is going to do with the legislation before it, and the problem we have with a number of these aggregates is that the institutional setting changes, which puts them on a roller coaster in the short run.

We have assumed here, somewhat arbitrarily, that the legislation isn't going to pass. I think that's probably contrary to the fact. But on the other hand, we didn't want to assume legislation that had not yet passed. If the legislation does pass, then we are faced with the difficult judgment as to how much  $M_{1B}$  is distorted during a transitional period by, in effect, drawing money out of  $M_2$ .

So I'm not sure that  $M_{1B}$  in this particular year, assuming the legislation passes, is going to be the best indicator in the world. It may look like it is on a roller coaster and require a judgment about what the transitional effect is. Right now, it moves quite closely with  $M_{1A}$ . But if we are faced with a new institutional setting, we will have to make a judgment about that.

Mr. VENTO. Mr. Volcker, you expressed great concern about the credit allocation aspects that were raised both by the chairman in terms of use of the discount window and present legislation that gives the administration, and perhaps the Fed, power.

But really, doesn't the monetary aggregate tool and the discount window that you have now really give you the same type of impact on business and the economy? I think it could be argued that in many instances these actions would be even less precise and more unwieldy. You seem reluctant to deal with some of the subjective judgments that might be called upon in terms of credit allocation, but obviously they are inherent in the current power that you freely exercise.

But are we so frozen and static that we have no dynamic change? For instance, I find this  $M_{1B}$  definition very late in arriving in terms of dealing with monetary policy, and what I'm really wondering is, don't we need some modifications when these monetary aggregate tools, discount window tools don't seem to be doing the job that they are supposed to?

Mr. VOLCKER. A market mechanism is both a wonderful thing and sometimes hard to fathom. Certainly, judgments have to be made about who gets particular amounts of credit and at what price. My conviction is that that is likely to be cruder and more arbitrary and less successful if I am the fellow who is supposed to administer those controls from Washington on some gross basis, because there is no way anybody sitting here—any of us, the whole Federal Reserve apparatus or anybody else in Government—can really make the kind of judgments based on particular, individual circumstances, that would have to be made.

Mr. VENTO. Tax expenditures, of course, hinge exactly on that type of problem, Mr. Volcker.

One last point I wanted to make before my time expires is that we talked about Federal spending in relation to the fiscal and monetary policy that exists. Since I have been here, the largest increase in any category of spending or uncontrollable spending has been, of course, the cost of interest on the national debt, which I suppose, in all cases is directly attributed to the Federal Reserve Board policy.

In other words, you are the leader of the pack by virtue of Federal Reserve Board actions and their impact on the Federal budget. In terms of overall expenditure, the present national debt represents one of the smallest percentages of gross national product in recent history. It is, relatively, a low percentage of the GNP.

And I point this out to you, Mr. Volcker, because I am sure that you don't consider it in this light when you look at your monetary policy. This spending that goes on for interest is, in fact, on the demand side—not on the supply side—\$17 billion extra this year because of the Federal Reserve Board change and impact on monetary policy.

So I just wanted to put in focus the relationship between what you are doing and what we are doing and how they interact; and I would like you to comment on it briefly.

Mr. VOLCKER. I am not happy about the interest costs to the Federal Government. In relation to the total budget, despite those rapid increases that you rightly point to, this hasn't spiraled greatly. Maybe that is an indication of how rapidly other expenditures are rising.

Mr. VENTO. Well, I think the Fed is the leader of the pack on the fiscal side of Federal spending.

Mr. VOLCKER. Relative to the GNP. But my basic answer would be that those interest rates in a very fundamental way really aren't reflecting what we are doing. They are reflecting the inflationary situation that we have.

Mr. VENTO. You expressed some interest in terms of some sort of tax reform if we had the ability to do it. If we didn't have the type of expenditures for interest rates, perhaps we could do it. Perhaps we could have an agreement.

Mr. VOLCKER. Let me give you an example of that interest rate phenomenon.

Mr. FAUNTROY. And this will be the last one.

Mr. VOLCKER. In the past month—if I can just be quick—there has been a big decline in the bond market which will undoubtedly add to the interest costs of the Treasury for some years to come.

That decline in the bond market didn't reflect any change in policy on our part. It reflected growing concern about inflation in the marketplace. We had no overt or covert action that produced the 10-point decline in the bond market, but there it happened. I think it is a good example.

Mr. VENTO. Mr. Chairman, I would just yield my time by saying, "Lag, Mr. Volcker, lag."

Mr. FAUNTROY. The time of the gentleman from Minnesota has expired.

And finally the time of the gentleman from Oklahoma, Mr. Watkins, has arrived. Amen.

Mr. WATKINS. Mr. Volcker, I have been waiting patiently all morning long. I hope you can be patient with me as I discuss with you something very much on my mind.

I came to Congress 4 years ago after spending 12 years in the homebuilding business. My entire life was put into that business.

You mentioned homebuilding has been the point. All of us in the homebuilding business think we are the whipping boy most of the time. Any time we have tried to get a handle on the economy, the interest rates increase.

I am here to say there are some alternatives to just raising interest rates in trying to get hold of the economy.

We have watched this over a long period of time. I think you, the Feds, are bankrupting a lot of homebuilders and taking away their complete life and survival from them. The Feds are pricing homebuilding completely out of the market for most people, because they can't afford homes nowadays, especially in the private sector itself. And you, the Feds, have to accept the responsibility, as my friend, Bruce Vento, from Minnesota said, for causing much of the inflation. In fact the biggest inflationary factor in homebuilding happens to be the interest rates.

Now, why? I have on my desk right now, Mr. Volcker, the names of three homebuilders who have called me from Oklahoma who ask "What's happening? Which way can we go?" They are quitting building. They cannot continue to exist in the private sector.

Another increase of a percent or two of interest doesn't bother them, because they have extended themselves so much in the past. They have kept going with you. They have kept borrowing with

you. They have kept going out there on a limb with you, and now they are saying, "Hey. What Federal program exists to help us out?"

So Mr. Ashley's Subcommittee on Housing and Community Development will have to investigate into "What kind of housing program can we come up with that can provide housing because of the high interest rates?" We have shut homebuilding down. We have put the man in Government on the spot to come up with more subsidized housing which causes more indebtedness, more inflationary forces, and more Government spending.

I say there is an alternative. There has got to be an alternative.

I would like to point out a couple of alternatives I see. You say there are no alternatives other than high interest rates. Let me tell you, high interest rates are the policy we have had, the old time religion we have used. Maybe we have to go back to the older religion.

As one of my colleagues said, wage and price controls are one way we have got to go. I say there is another way we can go that is under the jurisdiction of the Fed. It is your responsibility. That is to tighten credit from another angle—downpayments. Downpayments. This little thing I am holding in my hand—a credit card—has come on board in the last decade or so. It has been a big factor, and it caused changes in monetary policy. It creates money. I talked to my good friend, Gladys Spellman from Maryland a while ago. Most of us in our earlier days had to have a downpayment to purchase anything especially things that appreciate like homes. We had to have credit. But now we are buying everything on credit that depreciates. We are paying for things that we don't even own anymore. Automobiles are being financed over a 4- to 5-year period instead of a 3-year period. That is an expansion of monetary policy. We have not changed the Fed's policy on looking at that, not one single bit.

Credit is an element in the economy we have got to look at. It is one of the things I think would answer the issue that the President stated back in June in his statement about the crisis of confidence. Most people find themselves overextended today. They have got more months left than they have dollars.

They should be required to start saving a little. That would build their confidence back. We have overextended in this country because of that.

I have two questions I would like to ask, based upon that particular scripture we have used and also that particular text we have talked about.

The first question requires only a yes or no answer.

Have you discussed credit downpayment as a means of controlling inflation at the Fed?

Mr. VOLCKER. No.

Mr. WATKINS. If you have not, my second question is why not?

Mr. VOLCKER. I tried to suggest the answer to that earlier, Mr. Watkins.

There is, I think, a great deal in your preliminary comments with which I would agree: that the savings rate is too low; that we have grown into the habit of individually, perhaps, living on too much credit.

But I am still faced with the question of what is appropriate in today's circumstances. I would not have thought that a downpayment requirement would help the housing industry, already a matter of



considerable concern for the reasons you suggest. I must say, the whole thrust of public policy for many years has been to go in the opposite direction——

Mr. WATKINS. It is more than just housing.

Mr. VOLCKER. I agree there is more than just housing. But the other big area, as I suggested, is the automobile industry.

Credit cards, which I think have the practical effect that you suggest of speeding up the turnover of money, are taken account of as best we can in the way we set our targets. But it would be a very big change in the habits of the American people, at this stage I am sure, to outlaw the credit card; and I don't know what you would do about it other than, in some sense, outlawing it.

Is that the direction we really want to go: take those decisions away from the individual consumer who apparently appreciates the ability to make them?

Mr. WATKINS. I think a crisis of confidence exists.

Mr. VOLCKER. I don't disagree with that.

Mr. WATKINS. Credit for automobiles, as I mentioned, has been extended from 2 to 3 years to 4 to 5 years. That is expansion. In days gone by, we used to have to pay down to buy washing machines and the like.

Mr. VOLCKER. I agree.

Mr. WATKINS. Today we don't.

Mr. VOLCKER. I agree.

Mr. WATKINS. We have just put a flame under the inflationary situation and the Feds have not addressed it. You said they haven't even discussed it, and it is a big contributor to the expansion of the inflationary factor.

I would like to ask, Mr. Chairman, for a report to this committee about credit, downpayments. I think it would build people's confidence back. It would put money into our housing industry. We would be able to lower interest rates. I think you could equalize, if you please, this burden just a little bit across this Nation.

Some people are saying wage-price controls are the answer. I say there is one other alternative, and I think we should at least look at it.

Mr. VOLCKER. We would be glad to provide you with an analysis of our thinking on this matter.

Mr. WATKINS. I would like to propose you look at this hypothesis about less credit not just higher interest rates. It would help provide a slowdown in the economy and lower inflation.

Mr. FAUNTROY. Without objection, the Chair will request of Mr. Volcker a specific response on that question. With that, the time of the gentleman has expired.

We have two members who have come who have not yet been heard from. I'm going to ask if Mr. Green would yield for Mr. Ashley at this point, and then we will pick your questions up.

Mr. Ashley?

Mr. ASHLEY. Thank you, Mr. Chairman. I will be brief.

I am interested in your testimony from the standpoint of the energy problems that our country faces. I understand that the Federal Reserve's monetary targets aren't designed to accommodate inflation any more than they're designed, at least in the short term, to curb inflation. What bothers me, I guess, Mr. Volcker, is the fact that in

1972 the United States paid \$5 billion for its imported oil. This year it will pay between \$90 and \$100 billion for our imports. Next year it is going to be worse because of the impact of decontrol, which I support. But from a cost factor, an inflation factor, we can't delude ourselves, because what we are doing now is mixing very expensive foreign crude with at least partially controlled domestic. Next year we are going to be mixing probably even more expensive foreign crude with uncontrolled domestic, which of course will be set at the foreign price.

Mr. VOLCKER. It won't add to our import costs next year unless the price goes up. Aren't you making some judgment about the price?

Mr. ASHLEY. That is so. But in terms of overall economic impact—

Mr. VOLCKER. Decontrol affects the price level.

Mr. ASHLEY. Yes, right. What bothers me, of course, is the fact that we have control over the price in the short term of oil to the OPEC countries. Now, it might be arguable that financially we have the inherent power to control that if we wanted to use it. But from a practical standpoint, we haven't that price control. The establishment of the price of crude oil rests not with us but with the OPEC countries.

What they're saying is, until you get more jobs, take some action at home, constrain demand, we will do it for you, we will do it either through the price mechanism or we will do it through availability of oil or a combination of both.

I guess my question is this: Now, here you are, trying with great capacity, to say nothing of goodwill and so forth, to chart a monetary course for our country, where you have got about three wild cards as far as energy is concerned, that you have no way of knowing how to figure. Do you take a worst case kind of approach or just how do you handle that? How does the Fed handle this kind of a dynamic that obviously is of such significance in every single facet of our economic activity?

Mr. VOLCKER. We can't do it well, as you suggest. We certainly can't do it perfectly. And I do think that we are going to be at the mercy of this situation until we do a better job of convincing people that we are going to have a declining demand for imported energy. That is why I attach great priority to that, even though the immediate impact may be to push costs up further in the very short run. I think the long-run benefits are so clear that we can't afford not to act.

How do we take it into account? We knew specifically at the time we were setting these targets for this year pretty much what the oil price impact had been up to date.

Mr. ASHLEY. I should think, then, it would be very misleading, because we went from 1972 to about 1978 with a very tranquil kind of situation.

Mr. VOLCKER. It is a question of whether it is or not. We make the operating assumption—maybe this falls into the prayer category—that from here on out, looking at a 12-month period anyway, the increases in the price of oil will be moderate at most. That is after a great big hump in prices and against the background—a factor you didn't specifically mention here—that there is currently an excess of production over consumption in the world. In other words, there has been a lot of stockpiling, and at least in a very short-run sense one of the factors that pushed the oil prices up so sharply during the fall

was the fact that spot prices—not the official prices of OPEC—were sky-high. OPEC prices have gone up, but they went up to match the spot prices, because there was so much hoarding and stockpiling of oil.

As time has passed, stocks have increased, and I hope that that particular point of pressure on the market subsides. And if it does—and I think that it is critically important that it does—the near-term outlook for prices is not unreasonable. If that assumption is upset, we have got still more problems than we have counted on here; and we've got plenty.

Mr. ASHLEY. You see, I can see that if you are wrong on this you are going to have to accommodate your monetary targets, you are going to have to relax. You will have to, because if you misjudge badly enough and you don't accommodate the misjudgment by relaxing credit policy, you send the economy right into a recessionary spin that would be very severe.

Mr. VOLCKER. I told you the assumption that we made in developing these particular targets. I think there is some element—not wholly—but some element of chicken and egg in this process; if we do not have reasonable restraint we will maximize the chances of getting just the kind of further oil price increase you are concerned about.

Mr. FAUNTROY. The time of the gentleman has expired. The gentleman from New York, Mr. Green.

Mr. GREEN. First, Mr. Volcker, let me apologize for not being here earlier. The rental housing task force of the Housing Subcommittee was holding hearings this morning in New York from 8:30 to 10 o'clock. So Mr. Volcker, we have been at work.

But I did want to ask about the fact that there still seems to be abroad in the land a feeling that credit is easy, despite your actions on October 6 and despite your policies since then. Maybe money is more expensive and maybe corporate treasurers are deciding to borrow short instead of borrowing long because of what has happened in the bond market. But there is still plenty of money around in the banking system.

Would you care to comment on whether that is an accurate perception, and if so why it is happening despite Federal Reserve policies, and what can be done about it?

Mr. VOLCKER. I am aware of some of those feelings. Perhaps some of those people should have been listening to some of the comments from your colleagues this morning. But, I think, there is certainly reality to the fact that credit has continued to flow during this period. I think there is also reality to the fact that, horrendous as these interest rates are in respect to our own history, what those people are telling you is they are willing to borrow at these interest rates because they are so pessimistic about inflation.

I think the homebuilding industry has obviously been hit, and it is the most vulnerable point. But even in that area, I suspect a number of people have been surprised at the willingness to borrow, let us say, at a 13-percent interest rate. Perhaps it is not so hard to understand when you realize that the prices of houses have been going up at 15 percent or more. I think you do have to look at these interest rates in the perspective of what is happening to inflation; the interest rate phenomenon is, in very substantial part, a kind of tail-chasing phenomenon. I do, I think, take the kind of comment that you have made

and that you have heard from others seriously enough; there isn't real evidence that the economy has been brutally squeezed by what has been going on.

Mr. GREEN. Your response would seem to indicate in a sense that the policy faces a hopeless situation, because when there is an inflationary psychology the public will be willing to pay any price for money.

Mr. VOLCKER. I won't go so far as to say any price. You know, we have devoted a lot of effort, rightly or wrongly, over the past 15 years—and I think members of this committee have been very interested in this—to freeing up the markets from the kind of constraints that we once had. Regulation Q, which has been greatly liberalized, is a case in point, but it is not the only case in point. We are more reliant, in a sense, on interest rates, as that cost factor exerting restraint. We don't have the availability constraint that we once had, and most people count that as a blessing. But when people don't see it they say, "What is happening; we don't see it."

Mr. GREEN. Do you count it as a blessing?

Mr. VOLCKER. Oh, by and large. I think that we needed some freeing up here. I get restive about it now and then because it comes out partially in interest rates higher than they otherwise would be.

Mr. GREEN. Let me ask you this. Both in your report today and in your testimony to the Joint Economic Committee on February 1, you indicated that we ought to stick with the monetary discipline despite these short-term seeming reverses. Would it be useful to you to have the section of the Federal Reserve Act that deals with the open market policy amended so that, instead of basically calling for accommodating business and commerce, it would make price stability the basic target of the open market operations?

Mr. VOLCKER. That idea has come up from time to time. I think we have always interpreted our mandate as being concerned about price stability, if for no other reason than I don't think the economy functions effectively without it. I am not allergic to your suggestion.

Mr. GREEN. Thank you very much.

Mr. FAUNTROY. The time of the gentleman has expired. The gentleman from Ohio, Mr. Wylie, and the gentleman from North Carolina, Mr. Neal, have requested two more questions. And in the time remaining to us, the Chair yields to them for those questions Mr. Wylie?

Mr. WYLIE. Thank you, Mr. Chairman. You have been very patient and very good, I might say, and I won't prolong this. But I would like to ask a question on how good can you be—and I am sorry the chairman of the committee is not here as I ask this. What percentage of total commercial bank deposits are presently subject to the Federal Reserve? At what of deposit coverage is the Fed's ability to control monetary policy threatened? In other words, if there is no early resolution of the membership legislation, how soon before the Fed's ability to control monetary policy will be in jeopardy? I say that advisedly, because Secretary Miller, then Chairman Miller, more than 1 year ago said we had almost about reached the emergency threshold at that time, if I interpreted what he said correctly.

Mr. VOLCKER. Where we are at is moving below 70 percent of deposits, and we are moving more rapidly now, because we are having quite an exodus of member banks, given that the situation has not been

resolved. The way I would answer your question as to threshold is perhaps not quite as precise as you would like or I would like; the answer is that I don't know precisely.

I think it is a process; that we don't pass from full control one day to lack of control the next day. I would say we are already feeling the pressure. We already have a situation in which nonmember banks, particularly during a period like this, seem to one way or another be able to expand more rapidly than member banks.

But, more importantly, there is a degree of inhibition on some actions we might take that fall only on member banks and create a bigger relative burden on those banks, including some of the measures that the chairman has been interested in. These get into such technical areas as lag reserve accounting. It is not so easy to have contemporary reserve accounting in this complicated world in which we live when we are only going to burden a handful of member banks with that kind of approach.

When you get in the area of reserve requirements, it gets very difficult to make any change in those requirements in a more restrictive direction when that only adds to the burdens of a limited sector of the banking community. So I think it already is an inhibiting factor, both in open market operations and, perhaps more importantly, in other operations. Now, where the precise crisis point is, I am not quite sure. But as I have always said, I don't want to find out in the event, because I think it already inhibits us; it already makes our life substantially more difficult.

Mr. WYLIE. Thank you very much.

Mr. FAUNTROY. Thank you.

Mr. Volcker, as you can understand, the committee is vitally interested in your report, and I am going to recess briefly for the members to vote, and we will resume at 5 after 1.

[Brief recess.]

The CHAIRMAN. The committee will be in session again.

Mr. Evans of Delaware?

Mr. EVANS of Delaware. Mr. Chairman, there is one thing for sure around here. You can never make any plans. I apologize for keeping us late. I will be very brief.

Mr. VOLCKER. I made plans to stay here. Go right ahead.

Mr. EVANS of Delaware. I had asked earlier about the elapsed time in terms of the impact on the inflationary spiral that we have with the exercise of monetary restraint. And as you know, people vary in their answers to that. Professor Friedman feels that it is somewhere close to 2 years. The staff of the Subcommittee on Domestic Monetary Policy indicates that before any significant impact on inflation, you would have to be exercising monetary restraint for about 2 years.

What is your feeling?

Mr. VOLCKER. I wouldn't pretend to make that kind of precise judgment; I don't think it is wise to suggest it with that kind of precision. There are too many other things going on in the economy.

I just had a colloquy with Mr. Ashley about the impact of oil prices and, in the kind of time perspective that you are talking about, unfortunately, they may be as influential as monetary policy. So trying to make that kind of a judgment without too many other assumptions in place seems to me a futile game. I think we can all

agree it takes some time, and it is not a case where nothing happens for 2 years and then after 2 years everything has happened. It is obviously a gradual process.

Mr. EVANS of Delaware. Mr. Volcker, I understand that completely. But before the Joint Economic Committee you said that some progress would begin to emerge within the year.

Mr. VOLCKER. Let me look at it this way. I was hopeful, maybe too hopeful. But I think there were reasonable grounds last October, given what looked like the most likely course of the economy and making what turned out to be a far too modest adjustment for oil prices, for thinking that we would see a visible decline in the price indexes about now, and that that would have been very healthy in terms of expectations and psychology. And as people began to see prices going down, the process could continue during the year.

Quite clearly we have been thrown off course. We have been thrown off course both by the general psychology, by the disturbed international situation and its direct implications in terms, at least, of uncertainty in defense spending and, most importantly, by the size of the oil price increase. So instead of people feeling better about inflation, they now feel worse; I think that is quite clear. So we haven't begun turning those expectations around.

Mr. EVANS of Delaware. I do understand the psychological impact of this type of thing. You have said in your prepared statement that the inflation rate is currently responding to the new oil price increases. Then you said later, in response to a question, that the oil prices were extremely aggravating as far as the inflationary spiral that we presently are enjoying.

I think there is a tendency among many to blame OPEC for all of our problems. If our wives leave us, it is the OPEC problem or it is the major oil companies' problem. Everybody blames the major oil companies or OPEC for everything. And that is a factor, but, you know, it is not the controlling factor in terms of the inflationary spiral that we are in. And you agree to that, don't you?

Mr. VOLCKER. I think it is a very large factor.

Mr. EVANS of Delaware. How large, sir? Because West Germany, for example, has an inflation rate of a little over 5 percent; they import about 96 percent of their oil from the OPEC nations. Japan imports 99 percent of its oil; they have an inflation rate of less than 5 percent. I could go on and on and on.

Mr. VOLCKER. We cannot blame our whole inflation problem on our oil price situation.

Mr. EVANS of Delaware. Many people have, as you know, sir.

Mr. VOLCKER. And I would disagree with that. But I hesitate to put a quantitative limit on it.

Mr. EVANS of Delaware. Others do not hesitate, because I have heard the administration spokesmen indicate that it is probably 60 to 80 percent of the cause of inflation. Yet a Department of Labor survey just came out on January 25 which indicated it is responsible for perhaps a 3-percent rate of inflation—substantially less than 70 percent.

Mr. VOLCKER. You have to be careful about what comparisons people are making, I think. A lot of this talk says that our inflation rate is higher this year than it was last year or 2 years ago because of

oil; well, the inflation rate was already high 2 years ago. You can't blame that whole inflation rate on oil, nor can you, in my judgment, blame the entire thing on oil this year.

Mr. EVANS of Delaware. Let me change horses here for just a minute, Mr. Volcker. In talking to the gentleman from Oklahoma, Mr. Watkins, about consumer credit, there were a number of suggestions made. You hear a lot of doom and gloom these days that the American consumer is bearing an unbearable burden in terms of their debt that they carry today. How does today's consumer compare with one of, say, 5 years or 10 years ago as a percentage of disposable income to total debt?

Mr. VOLCKER. If you look at those ratios generally, they are at all-time highs or very close to it. I think some of them have come down just slightly in the last couple of months, but, generally, they are at record levels.

Having said that, you have to realize the demographics of the situation has changed some. The work force has more younger people in it who typically are more heavily in debt; and, of course, people are handling their debt somewhat differently.

Mr. EVANS of Delaware. Typically, very heavy unemployment among young people, particularly teenagers. Yet people talk about Humphrey-Hawkins. If they really were concerned about doing something about unemployment of young people, we would have a youth differential in minimum wage. I take it you would support that?

Mr. VOLCKER. Yes. The minimum wage differential would help, but so would programs that get down into the areas where the problem is. In fact, aggregate employment relative to the working age population is at a record; it is enormous.

There has been an increase in employment of 10 million people in the last 5 years. It hasn't been hard to find the jobs for those equipped to find the jobs. Yet, we have these large numbers of young people—disadvantaged people in particular, whether they are black or white—who have no skills. I think a variety of social factors enter into the equation, and it is a most serious social problem.

Mr. EVANS of Delaware. It is an important one we should address from a moral standpoint and from an economic standpoint?

Mr. VOLCKER. It is one we should address from every standpoint. The question is: What are the adequate and appropriate tools for addressing it?

Mr. EVANS of Delaware. During your testimony and during the question-and-answer period here, you have been very kind and understanding to be here this long.

You referred to the lack of stability, and I agree that that lack of stability does cause problems in terms of investment capital, people who are willing to risk whatever it is that they have to create those things that do produce jobs. One of the problems I think we have that leads to instability is the fact that there are some who feel that there may be wage and price freezes imposed. What's your position on that?

Mr. VOLCKER. That question arose earlier, and I don't think that is a useful approach.

Mr. EVANS of Delaware. I didn't hear it, sir. I am sorry. I was here most of the time.

Mr. VOLCKER. I won't repeat my whole answer, but I do have some concern that that talk about that kind of approach—which I don't think provides anything in the direction of a fundamental answer to our problem—actually exacerbates the problem.

Mr. EVANS of Delaware. Long term, for certain, it does. And any country that has ever established that has gone downhill rather than up.

Mr. VOLCKER. It is no substitute, in my opinion, for all those other things that need to be done. As I said earlier, if the other things are done I don't think we need it. And the great problem with those controls, as I have observed them—whether in the United States or in other countries over the years—apart from all the bureaucratic and administrative problems, is that somehow they convey the notion to people that they are an answer to the problem.

Mr. EVANS of Delaware. We may not learn from history, even recent history.

Mr. VOLCKER. They are not an answer, and to the extent they are a substitute—and somehow, insidiously, they seem to be treated as a substitute for other actions—you know they are not going to work.

Mr. EVANS of Delaware. Well, it is like people who say, "Well, why could you possibly have decontrol of oil?" And I appreciated your statement in your opening remarks about energy independence, and perhaps it might be energy independence at the expense of rising costs, at least over the short term, because any controls just will not work ultimately and will not develop the energy independence that we need.

Mr. Volcker, I really appreciate your being with us this morning and your patience and your very succinct way of answering some most difficult questions.

And I thank you, Mr. Chairman.

The CHAIRMAN. Mr. Neal?

Mr. NEAL. Thank you, Mr. Chairman.

Mr. Volcker, I am going to get back to the same subject we discussed several times, and I want to try a different tack at it if I can this time. I just want to say that it seems to me that if you would be keeping with your own testimony and I believe, your own testimony, announce some long-term goals for the Fed and some very tight discipline, that single action would do more than anything to bring about a lower rate of inflation. To lower interest rates to lower the prices—because really those who are paying them are a waste that we are not facing up to the problem of inflation as well as we should. If they are getting paid in terms of less value and that's what it means savings.

Because it seems to me that people are all trying to change their behavior about spending the money. If they have more money, they're going to spend more. The only way to get that is to get the money supply to a couple of hundred billion dollars, which is the amount of the money supply.

One member said that the money supply was a source of inflation and you agreed. But the money supply is not a source of inflation. It's a source of inflation only if it's growing faster than the economy. And the money supply is growing faster than the economy. There's no other way to get the money supply to a couple of hundred billion dollars to reduce the inflation rate. The only way to get the money supply to a level of uncertainty is to get the money supply to a level of uncertainty. The Fed that is the only way to get the money supply to a level of uncertainty.



I just don't see any other way to reduce the uncertainty, to begin to restore the confidence that every one seems to agree that we need, other than the Fed announcing this kind of moderate, sensible long-range policy that would bring down the rate of inflation and increase the level of employment in this country.

I guess my question would be: Would you agree with the general importance of this kind of action? And maybe you could elaborate.

Mr. VOLCKER. I can only comment in this way, Mr. Neal. Unlike credit controls, this is a matter that has been discussed quite intensively within the Federal Reserve System. The general opinion has been that it would be unwise to attempt to be that precise. I recognize the tenor of your comments and what you hope to achieve; I have a certain degree of sympathy.

At the same time, I have a certain skepticism, I suppose, about the credibility with which an announcement of that sort would be greeted in any event. I think it is not as important as actually making a record, as we go along, from month to month. That is really more crucial than what we say on paper for the period of time ahead.

One of the problems that has been of considerable concern, too, I think, is illustrated by the fact that we have redefined the aggregates. We are catching the financial system in the midst of institutional change. With this new definition, we tried to, in a sense, get ourselves up to date, but we are hitting a moving target. Any targets that we give at this particular point in time on the basis of a particular definition inevitably have to be subject to change for no other reason than that reality changes. This is a complicated transition—and trying to be very simple and clear about it so as to affect expectations and behavior in the way that you and I would like to see is not that easy.

Apart from changes in definitions, we also allow ourselves some margin with these ranges, as you know; we think that is appropriate because these relationships are not built in concrete. So, for that reason—while I think I understand the philosophy that you are espousing and I have a great deal of sympathy for it—in practice, the FOMC has not wanted to set in that degree of concreteness for the future—partly for fear that our credibility would not be enhanced, but also for fear the situation might be confused amidst all these changes. While agreeing with the general philosophy that we have to get these ranges down over a period of time, showing performance from year to year—showing that we have in fact done it—is more important than making announcements, in this case.

Mr. NEAL. Well, I agree, Mr. Volcker, that that is most important, because, as I pointed out earlier, what we have had in the past is statements to the effect that it was going to happen, and it didn't happen.

It seems to me, though, that both are important, not only to do what you are doing, but to say and make clear that this is your intent.

I am just wondering, would you feel the same way—I understand your hesitancy to announce very strict targets over a 5-year period—would it not be helpful, though, to say that it is your intent to bring down the rate of growth and the monetary aggregates—

Chairman VOLCKER. Oh, that is—

Mr. NEAL [continuing]. To closely approximate the rate of growth in the economy? Are you saying that? I am sorry. I didn't mean to interrupt. But you are saying that, and I think it is very important.

Mr. VOLCKER. We certainly are saying—I think it is in my statement—that we see a progressive process here of bringing these growth rates down.

Now, of course, when you ask, “down to what?” you immediately get into a little technical trouble which bears upon this whole issue. Just to take  $M_1$ , there has been a very strong, increasing trend in velocity. If that trend continued at that rate—maybe it won’t, and you can well argue that in a noninflationary situation with lower interest rates it should not—we should, consistent with price stability, have a minus number in  $M_1$ . On the other hand, if that trend did not continue, as it might well not in a noninflationary situation, you shouldn’t have a minus number; you should presumably have a small plus number. That is a judgment that is hard to make for 5 years from now.

Now, I think we can say, without that kind of qualification, that a progressive reduction is necessary. But if you want to pin me down as to precisely what the noninflationary levels of these aggregates are, I am not in a great position for judging that right now. Certainly not as good as I am going to be, I hope, 5 years from now when we approach that point.

Mr. NEAL. May I just pursue this.

But it is your announced and clear intent to bring down the rate of growth and the monetary aggregates consistently and steadily over the next several years?

Mr. VOLCKER. That is what we have said. That is what we would like to do. That is what we intend to do.

Mr. NEAL. Thank you.

I would just like to point out, if I may, Mr. Volcker, that even though I would agree that a number of structural changes that you recommend are needed, the fact of the matter is it is very doubtful if those structural changes are going to take place. I just want you to be fully aware of that, that we have had several votes on the Davis-Bacon.

We have votes on that every year, and each time it comes up, overwhelmingly, any change is defeated. The minimum wage legislation was passed by the last Congress by probably a 4 to 1 or 5 to 1 margin; I don’t remember what the exact vote was. So, I just wouldn’t want you to think that these structural changes are going to take place very rapidly.

You pointed to the problems of bringing down the budget deficit. All I want to say is what you do is critically important in all this. Don’t wait.

Mr. VOLCKER. I think I fully understand the point you are making in that connection. I suppose hope springs eternal, and I think it is my responsibility to bring it to your attention.

I also think that the Congress and the American people ought to understand that they want to deal with inflation, I want to deal with inflation, and everybody wants to deal with inflation; but our job is made much more difficult to the extent these other things are not done.

Mr. NEAL. That is correct.

The CHAIRMAN. Thank you.

Mr. Green?

Mr. GREEN. Thank you, Mr. Chairman.

I simply wanted to ask Mr. Volcker what steps you take to assure that the banks do not undercut your policy of restraint via their access to the discount window. At times, the spread between the discount rate and the prime rate is wide enough to make it very enticing for banks to turn to the discount window.

Mr. VOLCKER. There has been a long tradition in the Federal Reserve, as I touched upon earlier, that there not be open access to the discount window for all purposes at all times. Obviously, it is there for emergency purposes. Obviously, it is there in the short run for banks with a problem in the short run. But we maintain surveillance over the use of that window, and we do not permit banks to borrow repeatedly at the discount window for the purposes of, in effect, arbitraging money. We have been watching that particularly carefully over recent months, and I think it is fair to say that we have not found any general pattern of abuse. In other words, the usage has been confined, by and large, within the general guidelines that have been established.

Now, that policy relies upon a long history of tradition and administration. Tampering with that tradition is one of the issues that we have raised in connection with changing, in any fundamental way, the manner in which the discount rate itself is administered. It is such a long-entrenched policy that we won't change it without the most careful consideration. I won't say we won't change it; but if it is changed, then you do have to change the manner in which the discount rate is administered.

Mr. GREEN. Do you think the spread between the discount rate and the prime rate that now exists is an appropriate one?

Mr. VOLCKER. The spread between the discount rate and the prime rate does not bother me. The more sensitive spread, I think, is the spread between the discount rate and the short-term market rates, like the Federal funds rate. We watch that, and sometimes that is a relevant consideration in changing; at other times, it is not.

But, let me note that given the way we are now operating, where we restrict the volume of reserves, if money growth changes, the banks are sort of forced to borrow. That means that, in some circumstances, at least, the spread may not change very much—regardless of what we do with the discount rate—but the level of market rates will change.

All things being equal, banks will continue to have to borrow if we don't provide the reserves to support money growth, and that is what happened in October in particular, when borrowing got quite high because we were refusing to validate, in a sense, the increase in deposits. We did not choose to raise the discount rate at that time because the market was under heavy pressure to start with; then, as the adjustments were made, the borrowing level came down.

Mr. GREEN. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much. And we are very grateful, Mr. Volcker, for your patience and cooperative spirit.

Mr. VOLCKER. I am very glad to have gone through this baptismal process with the committee, Mr. Chairman.

The CHAIRMAN. Thank you again.

This committee session is adjourned.

[Whereupon, at 1:25 p.m., the hearing was adjourned.]

APPENDIX

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ADDITIONAL MATERIAL SUBMITTED FOR INCLUSION  
IN THE RECORD

BRIEFING MATERIALS

PREPARED FOR HEARINGS ON  
THE CONDUCT OF MONETARY POLICY

PURSUANT TO P.L. 95 - 523

HELD BEFORE THE COMMITTEE ON  
BANKING, FINANCE & URBAN AFFAIRS

FEBRUARY 19, 1980

PREPARED BY STAFF, SUBCOMMITTEE  
ON DOMESTIC MONETARY POLICY

### The Economy in 1980, A Forecast

Our economy's overall or in-the-large performance usually is judged by what happens to prices and production. Unemployment is linked to the latter. If prices on average increase less than a year ago and output grows faster, nearly everyone would consider 1980 a good year. However, this is unlikely to happen in 1980.

What is likely to happen is that prices will increase 7 to 10 percent and output will rise  $1\frac{1}{2}$  percent, give or take  $1\frac{1}{2}$  percent. Here's why.

Added together, the percentage increases in prices and output between the fourth quarters of 1979 and 1980 will, by definition, equal the percentage rise in the dollar value of the Gross National Product (GNP) for the period. The percentage change in \$ GNP also can be decomposed into the sum of the percentage increases in the money supply and its velocity. By definition, then, we have that:

- 1) the % change in the GNP deflator (the index of all GNP prices)
- + 2) the % change in real GNP

=

- 3) the % change in money supply
- + 4) the % change in the velocity at which money circulates.

With respect to 1), the percentage change in the GNP deflator for 1980, the die was cast in 1979, 1978 and 1977, for inflation is largely predetermined by past money growth. The best estimate for the current year is money growth two years ago.

Using the Federal Reserve's new M1B measure of money supply, which equals coin, currency and transactions balances in all depository institutions, two years ago money grew 8.2 percent. As a result, the GNP price deflator is estimated to increase about  $8\frac{1}{2}$  percent in 1980. With a little luck it will rise only 7 percent. With bad luck it could rise as much as 10 percent.

Thus, item 2), real GNP for 1980, will equal the sum of the percentage increases in items 3) and 4), money supply and its velocity, less 7 to 10 percent.

Historically, item 4), velocity, has tended to increase about  $3\frac{1}{2}$  percent per year ever since World War II, and the result applies on average to the 1970s, although since 1973 the average has been 4 percent.

For 1980, it reasonably can be assumed that velocity will rise another  $3\frac{1}{2}$  percent provided that money growth neither sharply accelerates nor decelerates from the 1979 money growth rate of 8 percent. If the Federal Reserve slows money growth to  $6\frac{1}{2}$  percent this year, total spending is therefore likely to rise by 10 percent ( $6\frac{1}{2} + 3\frac{1}{2}$ ).

Subtracting the inflation estimate of 7 to 10 percent, we have that real GNP will grow  $1\frac{1}{2}$  percent in 1980, give or take  $1\frac{1}{2}$  percent.

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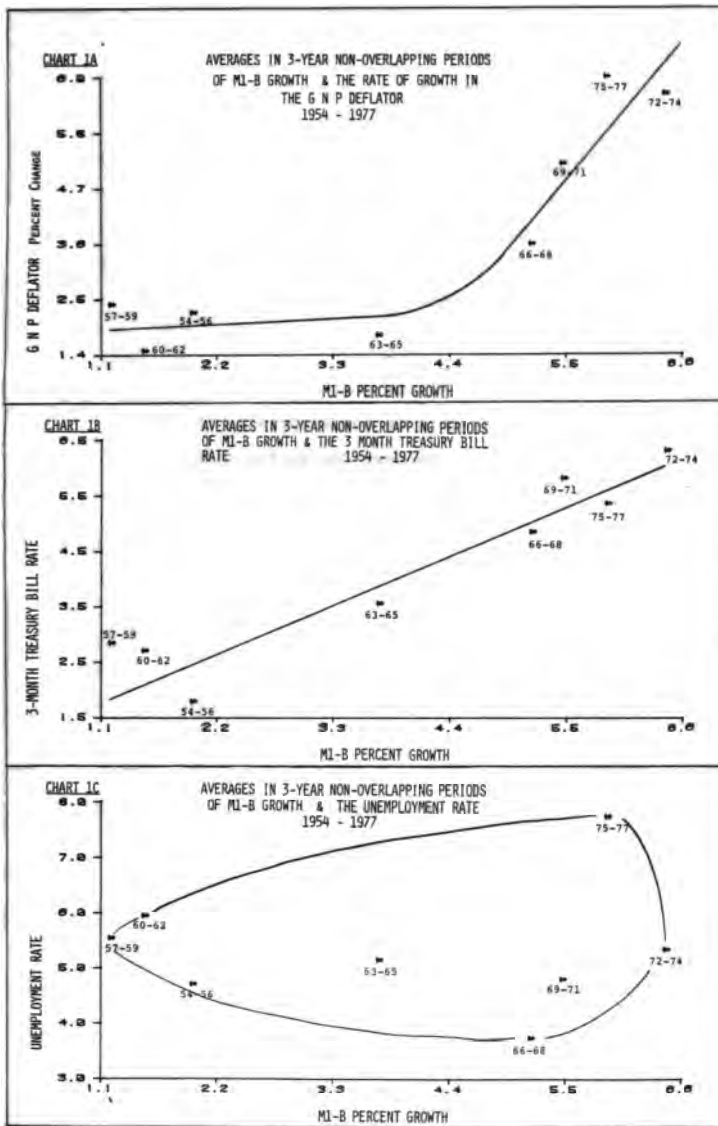
Slowing M1B growth to 6½ percent this year will begin, at long last, the gradual slowing of money growth which is prerequisite for the slowing of inflation. With luck inflation could begin to slow in 1981, but in any case it will begin to slow no later than 1982, PROVIDED we begin now, in 1980, to slow money growth from the 8+ percent per year growth rates of 1977-1979 gradually over a period of years to 2-3 percent per year.

If we stay the course, inflation will recede without triggering a deep or prolonged recession. However, if money growth is decelerated sharply, we will trigger another deep and prolonged recession. In the event, we would almost certainly give up the fight against inflation; and if at any time money growth is accelerated --for whatever reason-- the result will be higher and more persistent inflation, and over the long haul, higher interest rates and lower real growth. Clearly, we should stick to the policy of gradually --slowly but surely-- reducing money growth.

CHART 1. Exhibit 1 breaks the 1954-1977 period into eight consecutive 3-year periods: 1954-1956, 1957-1959, etc. For each 3-year period, Chart 1A relates average M1 growth to the average rate of rise in the Gross National Product deflator (inflation); Chart 1B relates average M1 growth to the average rate of interest on 3-month Treasury bills; Chart 1C relates average M1 growth to the average rate of unemployment.

The exhibit shows that there is a close positive relationship between money growth and inflation (Chart 1A) and between money growth and the rate of interest (Chart 1B). It shows that as money growth increases, so do both inflation and the rate of interest. Note especially that inflation accelerates rapidly when yearly money growth exceeds 5 percent.

The exhibit also shows that there is no relationship between the rate of money growth and the rate of unemployment (Chart 1C). This belies the Phillips Curve theory that inflation is inversely correlated with unemployment.





**CHART 2.** Last year, pursuant to the Full Employment and Balanced Growth Act, the Committee recommended reducing money growth 1 percentage point a year over the next four to five years. Using the Federal Reserve's new M1B measure, which equals publicly held coin, currency and checkable deposits in all depository institutions, money growth averaged 8.2 percent between the fourth quarters of 1977 and 1978. Thus, the projection for 1979 was 7.2 percent. Unfortunately, this was not achieved. Actual money growth averaged 8 percent in 1979. Moreover, during the year, M1B growth first fell short of the projection and then moved up sharply.

The shortfall in money growth early last year generated downside pressures on economic activity, so it is not surprising that the economy's momentum changed from up to down during the first half of last year.

In the same way, the upsurge in money growth that began in the second quarter provided strong upward impulses, so it is not surprising that the economy's slide was halted during the third or summer quarter.

The sensitivity of the economy to money supply changes last year warns us of the necessity of avoiding sharp changes even for short periods. Such changes are inevitable if the Federal Reserve focuses on hitting interest rate targets. Under that now discarded strategy, money growth was whipsawed by uncontrollable changes in credit and foreign exchange markets. The decision of the Open Market Committee in October 1979 to focus on controlling money growth is commendable. It should enable us to avoid the destabilizing sharp changes which have afflicted the economy in the past, and gradually to reduce money growth to a noninflationary rate.

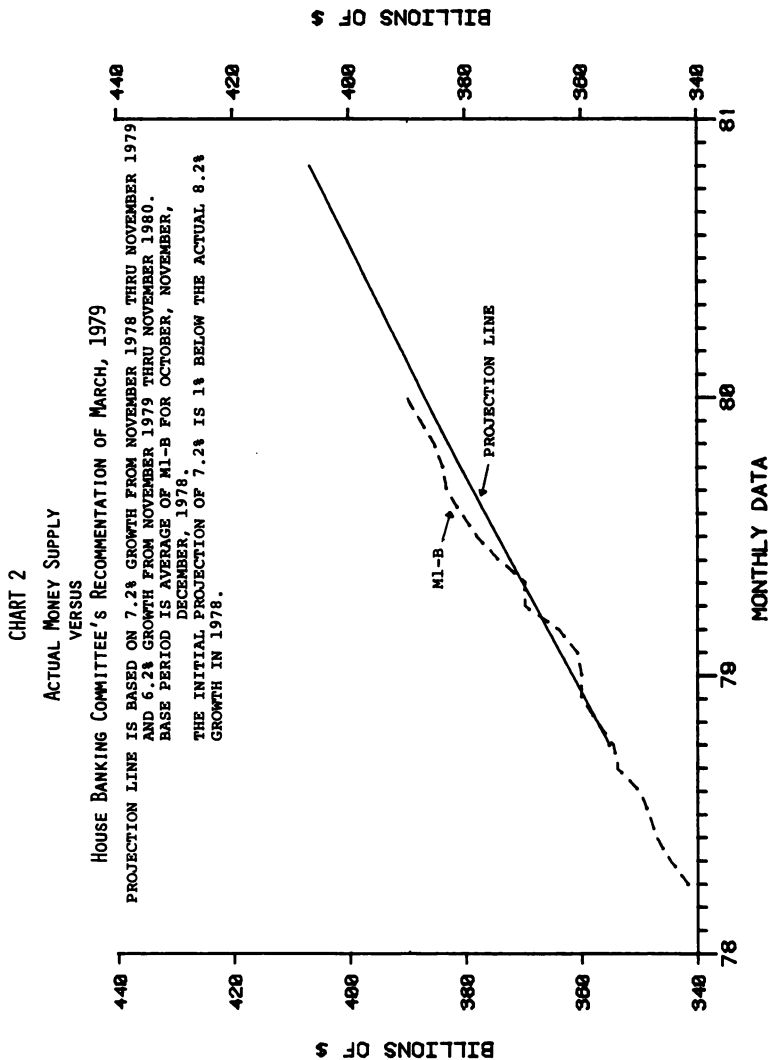
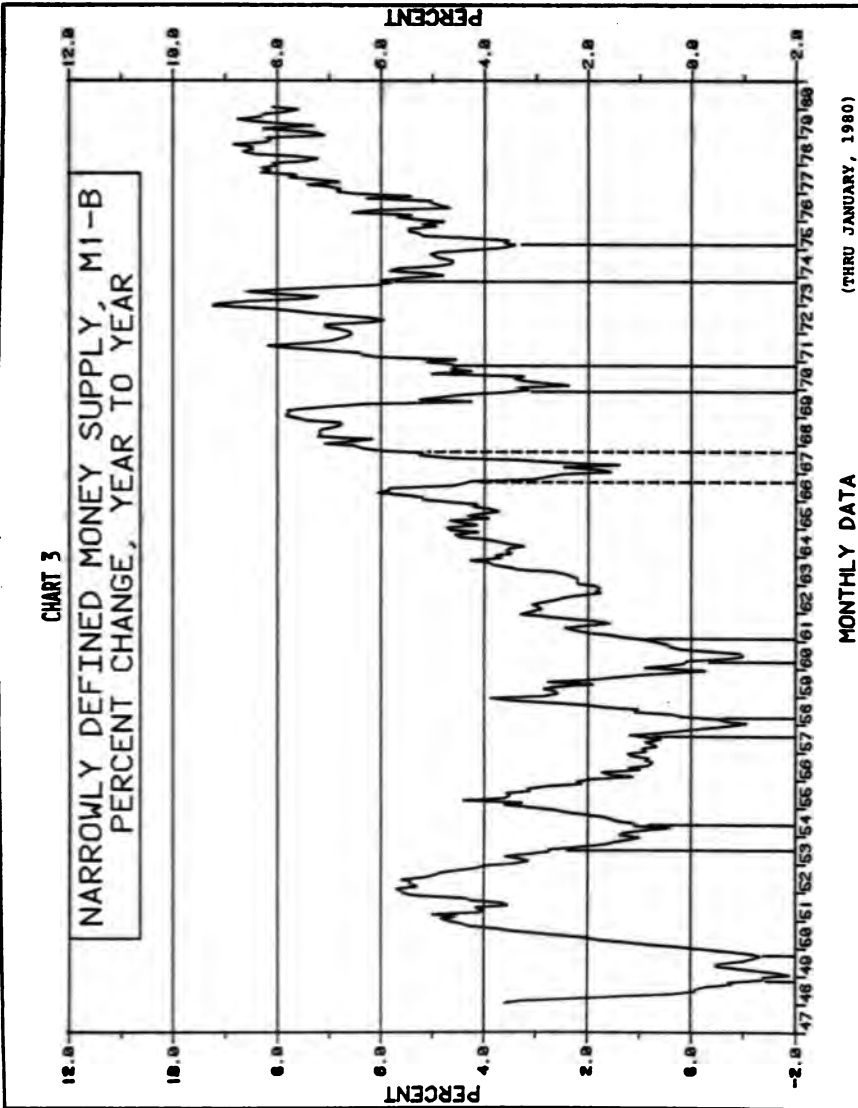


CHART 3. M1B growth, measured between the same months of adjacent years (for example, January 1947 to January 1948), cycled down and up seven times between the end of World War II and 1978. Beginning in early 1978 it appeared to start down once again. However, the slide was reversed in April 1979.

Our economy's performance in the post World War II period is mirrored in this chart of money growth. Inflation was broken after World War II and again after the Korean War by sustained low money growth. It was rekindled after 1964 by upsurges in money growth in the late 1960s, 1971-1973, and 1977-1979. Recessions, which are delineated by the vertical lines on the time axis, occurred in the wake of sharp prolonged decelerations in M1B growth, as the chart shows.

Last year the economy definitely slowed and dipped in the first half of 1979, although perhaps not enough to be labelled a recession; but then, in the wake of the upsurge in money growth that began in April, the economy reversed in the summer or third quarter.

Barring (a) another sharp prolonged deceleration in money growth, or (b) disruption in the flow of foreign oil, we do not foresee a major recession developing in 1980. Further in this regard, the Federal Reserve's new strategy of focusing on controlling money growth, should rule out another sharp prolonged deceleration of money growth. However, the flow of foreign oil is an unknown which could cause future problems.



**EXHIBIT 4.** Charts 4A and 4B map year-over-year percentage changes in the CPI and Gross National Product deflator, respectively, against year-over-year percentage changes in M1B (money supply) lagged two years. These charts show that the rate of inflation follows M1B growth of two years earlier fairly closely.

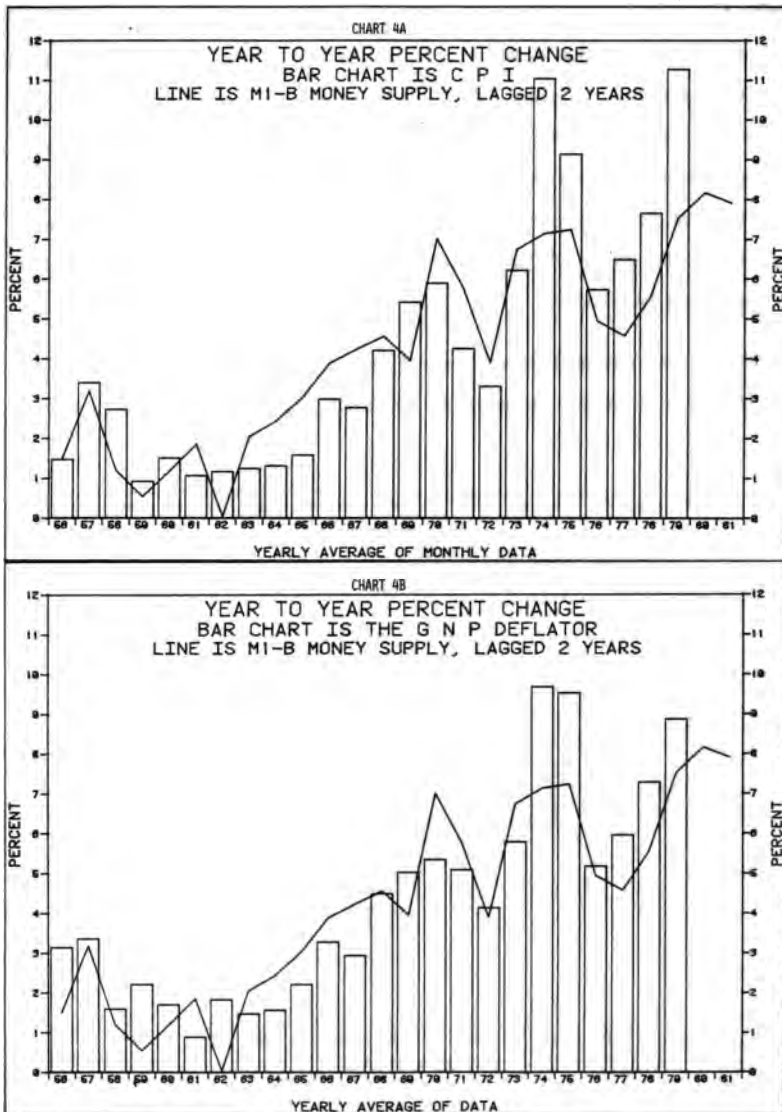


CHART 4. (continued) Charts 4C and 4D map percentage changes measured between the same quarters from one year to the next in the Consumer Price Index (CPI) and the Gross National Product deflator, respectively, on percentage changes in the quarterly average in M1B, also measured between the same quarters from one year to the next but lagged eight quarters. These charts also show that the rate of inflation follows M1B growth of two years earlier fairly closely.

Together, the several exhibits of Chart 4 provide hope that inflation will begin to subside in 1981, or at the latest 1982.

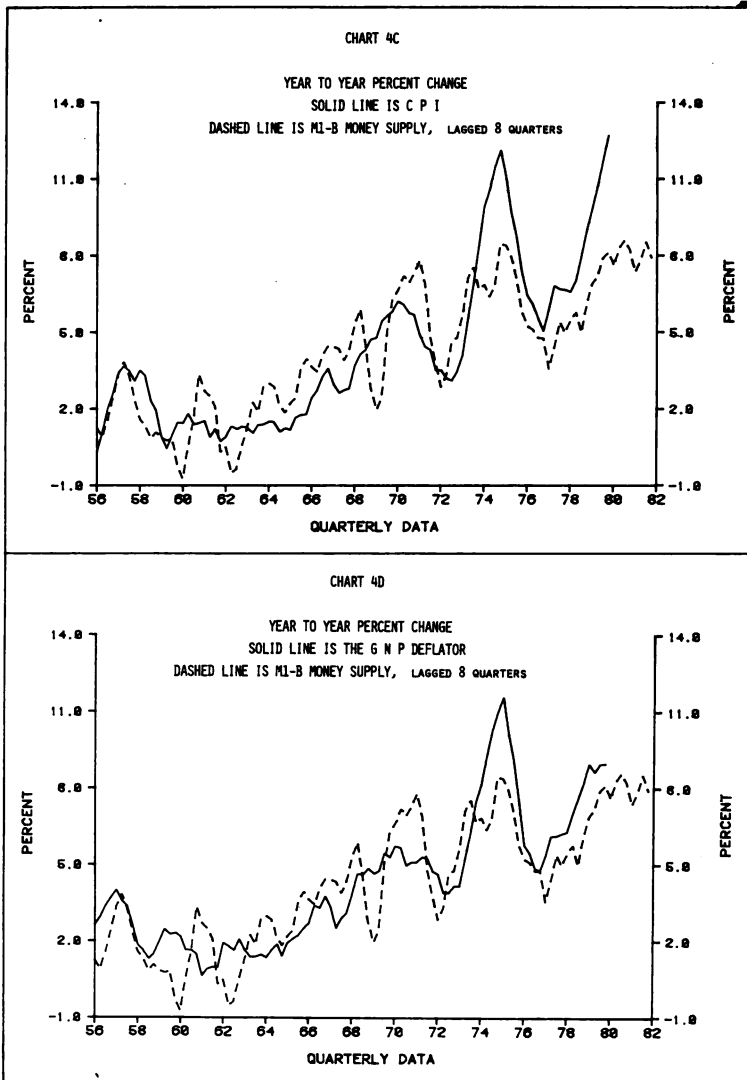




CHART 5. This chart plots the monthly average of the Federal funds rate--the overnight inter-bank interest rate, and percentage changes in the Consumer Price Index (CPI) from twelve (12) months ago. It shows that monthly movements in the Federal funds rate occur very closely together with changes in the inflation rate measured from the same month a year ago. This indicates that even short-term interest rates are very powerfully affected by immediate past inflation.

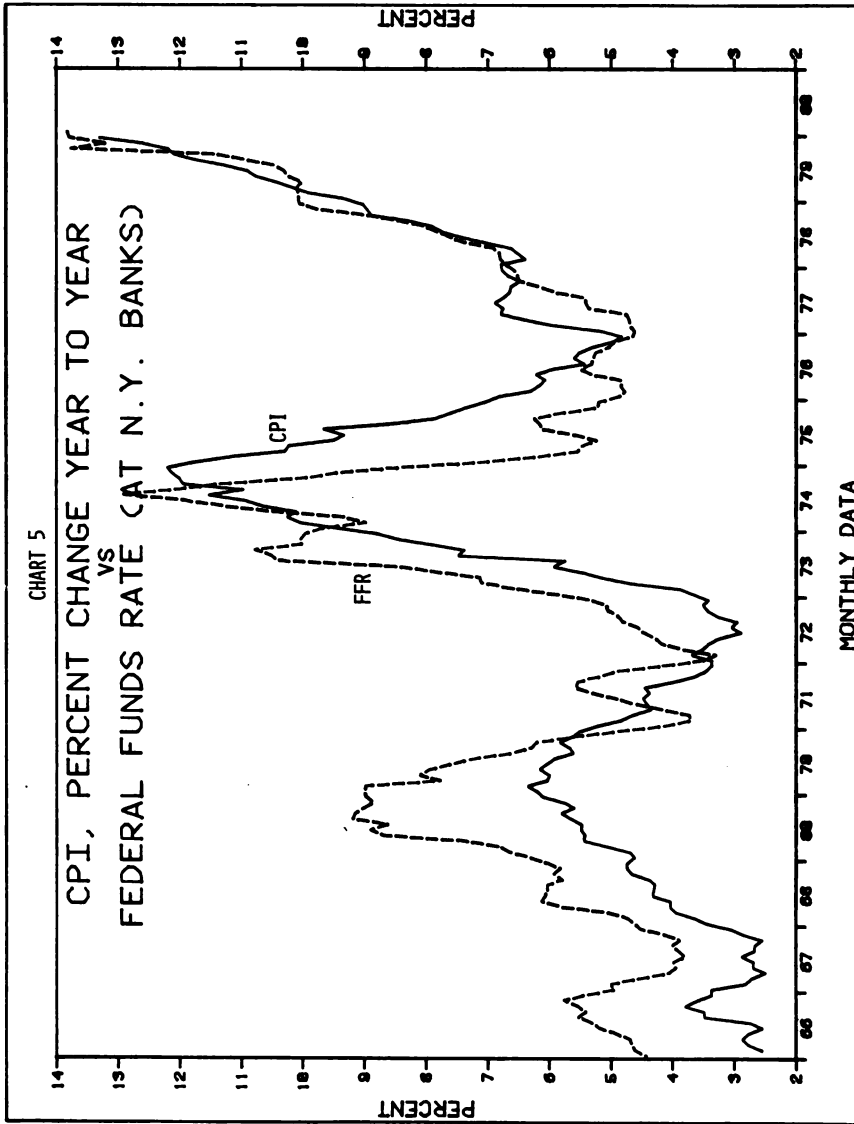


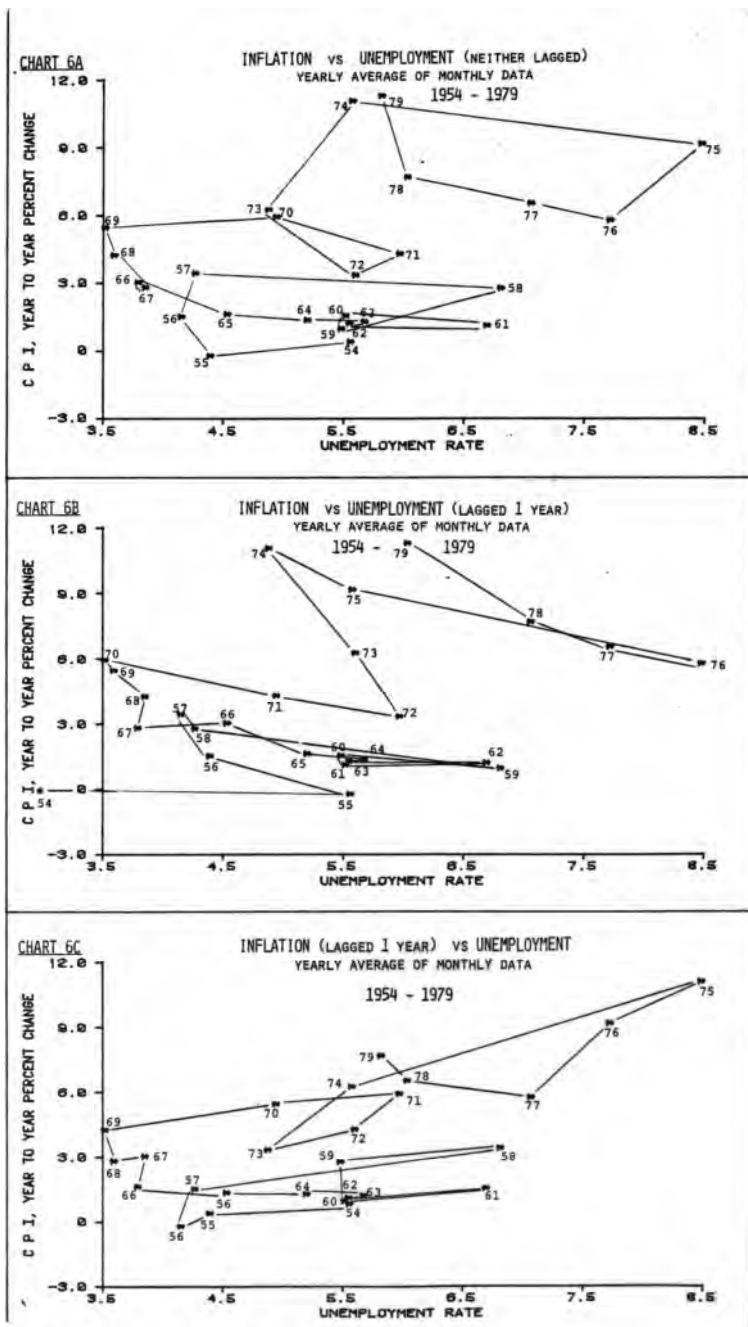
CHART 6. This chart graphs year over year inflation (vertical axis) against yearly unemployment averages (horizontal axis). The top panel graphs the two concurrently, the middle panel lags unemployment 1 year, and the bottom panel lags inflation one year.

The concurrent panel (6A) reveals that the so-called Phillips curve is unstable. On average, the trade-off was highly favorable from 1954 to 1965 but has worsened significantly since then.

The middle panel (6B) reveals much the same story. Specifically, for an arbitrarily selected unemployment rate, the rate of inflation the following year is much higher today than it was in the 1950s and early 1960s.

Finally, the evidence plotted in the lower panel (6C) reinforces this story. As indicated here, there is even some tendency for accelerating inflation to be followed by higher unemployment.

Viewed together with Chart 1, these three panels show that unemployment cannot be reduced by accelerating money growth and inflation. The only enduring result of faster money growth is higher inflation.







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**BRIEFING MATERIALS FOR MONETARY POLICY OVERSIGHT**

**Prepared for the Committee on Banking,  
Finance and Urban Affairs  
United States House of Representatives**

**by**

**F. Jean Wells  
Roger S. White  
Specialists in Money and Banking  
Economics Division**

**February 15, 1980**

## BRIEFING MATERIALS FOR MONETARY POLICY OVERSIGHT

This briefing document has been prepared to assist the House Committee on Banking, Finance and Urban Affairs in monetary policy oversight conducted pursuant to P.L. 95-523. It presents selected indicators for the economic setting in which monetary policy operates as well as indicators of the direction of monetary policy itself.

Section I of the report, monetary and financial measures, includes several presentations relating to the new official definitions for measures of the money supply which were announced by the Federal Reserve on February 7, 1980. The 1980 Federal Reserve targets for the money supply will be reported to the Congress in terms of the new definitions. Past behavior of the money supply as defined according to new official definitions is illustrated in graphs and tabular form in the first entries. Another table shows the Federal Reserve System one-year target ranges and actual growth rates from 1975 through 1979 for various measures of the money supply using the old definitions.

Sections II through V of the report present information on past and prospective developments in the economy. This information is provided to assist the Committee in reviewing the Federal Reserve's plans and objectives for monetary policy as they relate to prevailing economic conditions and to short-term economic goals set forth in the Economic Report of the President. The graphs in Section III trace past behavior of the economic variables for which the Administration submits numerical goals to the Congress. Section II,

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the forecast section, includes information on the Administration's short-term goals forecast for 1980 and 1981 and medium-term goals for 1982-1985. Sections IV and V contain selected international statistics and Federal budget data.

Assistance in preparing this report was obtained from Barbara L. Miles, Specialist in Housing, Barry E. Molefsky, Analyst in Econometrics, Arlene E. Wilson, Analyst in International Trade and Finance, and Philip D. Winters, Analyst in Regional Economics, all of the Economics Division. Secretarial production assistance was provided by Nancy Drexler.

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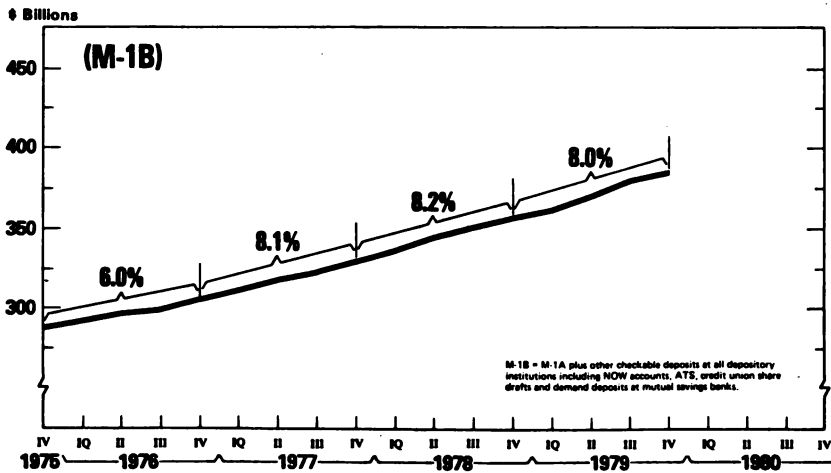
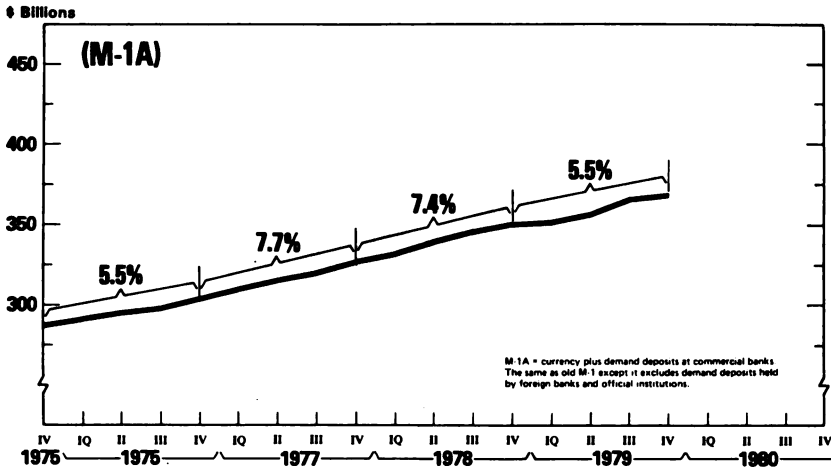
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## MONEY SUPPLY (M-1A) & (M-1B)

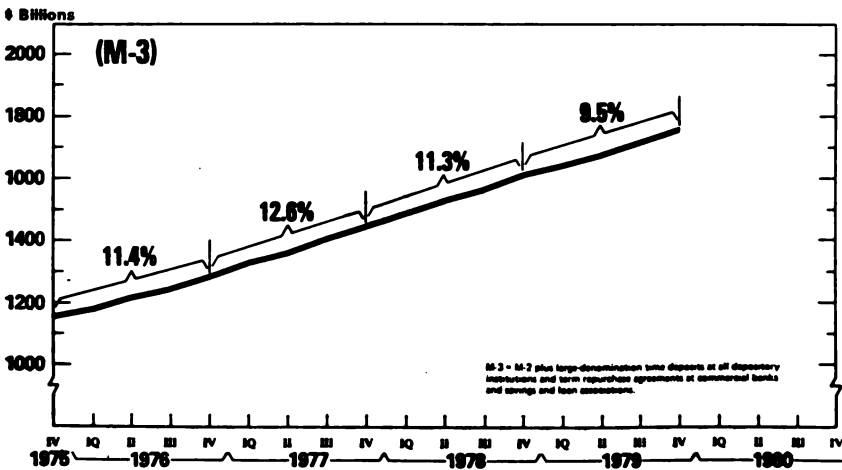
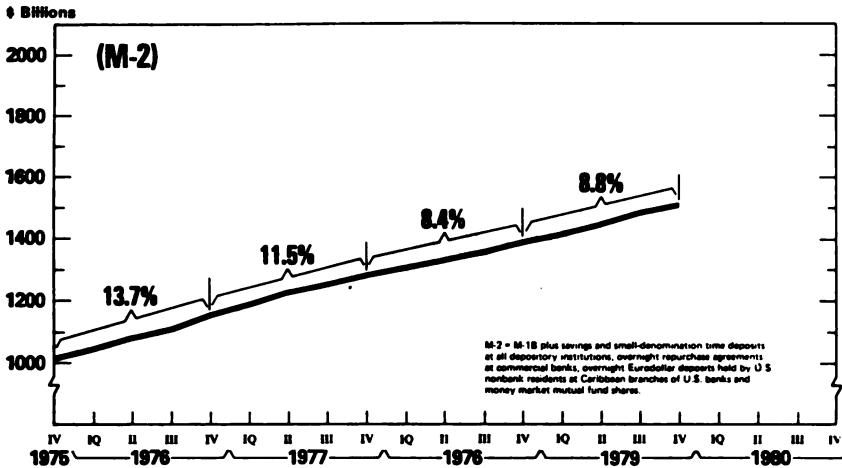
Actual Levels and Fourth Quarter to Fourth Quarter  
Growth Rates from Fourth Quarter 1975



Data Source: Quarterly observations and growth rates are calculated from seasonally adjusted data series of the Board of Governors of the Federal Reserve System as revised in February 1980.

## MONEY SUPPLY (M-2) & (M-3)

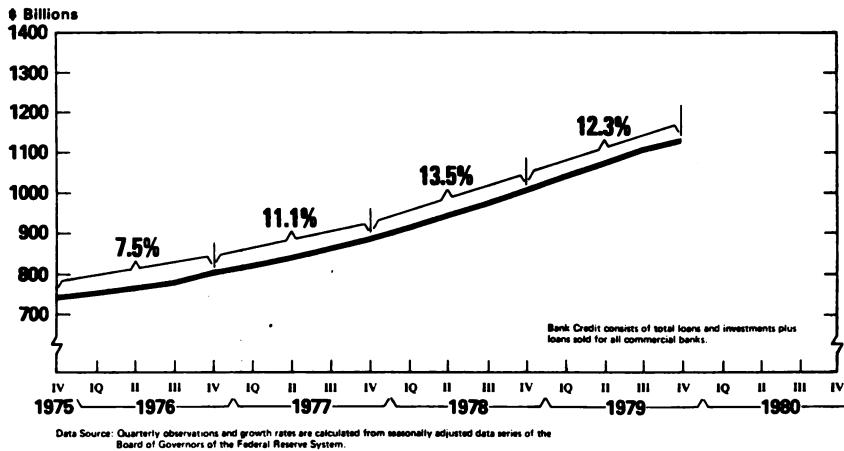
### Actual Levels and Fourth Quarter to Fourth Quarter Growth Rates from Fourth Quarter 1975



Data Source: Quarterly observations and growth rates are calculated from seasonally adjusted data series of the Board of Governors of the Federal Reserve System as revised in February 1980

## BANK CREDIT

Actual Levels and Fourth Quarter to Fourth Quarter  
Growth Rates from Fourth Quarter 1975



CNS-1

**GROWTH RATES FOR SELECTED MONETARY, CREDIT AND RESERVE AGGREGATES**  
(Seasonally adjusted compound annual growth rates)

	1/ 1976		1/ 1977		1/ 1978		1/ 1979		2/ 1978				2/ 1979				Federal Reserve targets 3/ 4th quarter 1979 to 4th quarter 1980
	1976	1977	1977	1978	1978	1979	1979	1979	II	III	IV	I	II	III	IV		
Monetary aggregates:																	
M-1A	5.5	7.7	7.4	5.5	8.9	7.3	5.7	0.2	8.1	9.1	4.8						
M-1B	6.0	8.1	8.2	7.9	9.4	7.5	7.7	4.9	11.1	10.6	5.4						
M-2	13.7	11.5	8.4	8.8	7.7	8.5	9.8	6.4	10.6	10.8	7.4						
M-3	11.4	12.6	11.3	9.5	11.5	10.8	12.0	8.1	9.1	10.7	10.1						
Bank credit	7.5	11.1	13.5	12.3	13.5	13.5	14.6	14.6	11.8	14.1	8.7						
Reserve aggregates: (adjusted)																	
Total reserves	0.7	5.4	6.6	2.7	6.3	8.9	2.2	-3.1	-3.6	5.2	13.0						
Required reserves	0.7	5.5	6.7	2.4	6.9	8.9	2.0	-3.0	-3.4	4.9	12.1						
Nonborrowed reserves	0.9	3.1	6.7	0.6	0.7	6.8	4.5	-3.6	-7.2	7.2	6.9						
Monetary base	6.7	8.3	9.1	7.5	7.9	9.6	8.6	5.7	4.9	9.6	9.9						

1/ From fourth quarter of previous year to fourth quarter of year indicated.

2/ From previous quarter.

3/ Federal Reserve projections will be announced in the Monetary Report to Congress Pursuant to the Full Employment and Balanced Growth Act of 1978, to be transmitted to Congress by February 20, 1980.

Sources: Calculated from data series of the Board of Governors of the Federal Reserve System, accessed from data files of Data Resources, Inc. At the time the reserve aggregate data were accessed, the Federal Reserve was in the process of making new seasonal adjustments for these series. Data accessed reflects changes which have been made as of February 14, 1980.

CRS-5

FEDERAL RESERVE SYSTEM ONE-YEAR TARGET RANGES AND ACTUAL GROWTH RATES  
 FOR MONETARY AGGREGATES UNDER OLD DEFINITIONS FOR MONEY  
 (Growth rates in percent)

Period	M1		M2		M3	
	Target	Actual	Target	Actual	Target	Actual
Mar. 1975 to Mar. 1976	5.0 - 7.5	5.3	8.5 - 10.5	9.7	10.0 - 12.0	12.2
1975: Q2 to 1976: Q2	5.0 - 7.5	5.3	8.5 - 10.5	9.6	10.0 - 12.0	12.1
1975: Q3 to 1976: Q3	5.0 - 7.5	4.6	7.5 - 10.5	9.3	9.0 - 12.0	11.5
1975: Q4 to 1976: Q4	4.5 - 7.5	5.8	7.5 - 10.5	10.9	9.0 - 12.0	12.7
1976: Q1 to 1977: Q1	4.5 - 7.0	6.5	7.5 - 10.0	11.0	9.0 - 12.0	12.9
1976: Q2 to 1977: Q2	4.5 - 7.0	6.8	7.5 - 9.5	10.8	9.0 - 11.0	12.5
1976: Q3 to 1977: Q3	4.5 - 6.5	8.0	7.5 - 10.0	11.1	9.0 - 11.5	12.7
1976: Q4 to 1977: Q4	4.5 - 6.5	7.9	7.0 - 10.0	9.8	8.5 - 11.5	11.7
1977: Q1 to 1978: Q1	4.5 - 6.5	7.7	7.0 - 9.5	8.8	8.5 - 11.0	10.5
1977: Q2 to 1978: Q2	4.0 - 6.5	8.2	7.0 - 9.5	8.6	8.5 - 11.0	10.0
1977: Q3 to 1978: Q3	4.0 - 6.5	8.0	6.5 - 9.0	8.5	8.0 - 10.5	9.5
1977: Q4 to 1978: Q4	4.0 - 6.5	7.2	6.5 - 9.0	8.7	7.5 - 10.0	9.5
1978: Q1 to 1979: Q1	4.0 - 6.5	5.1	6.5 - 9.0	7.6	7.5 - 10.0	8.7
1978: Q2 to 1979: Q2	4.0 - 6.5	4.8	6.5 - 9.0	7.7	7.5 - 10.0	8.6
1978: Q3 to 1979: Q3	2.0 - 6.0	5.3	6.5 - 9.0	8.2	7.5 - 10.0	8.7
1978: Q4 to 1979: Q4	<u>1/</u>	5.5	5.0 - 8.0	8.3	6.0 - 9.0	8.1

For notes see next page.

Old definitions for money:

M1 = private demand deposits plus currency.

M2 = M1 plus bank time and savings deposits other than large negotiable CD's.

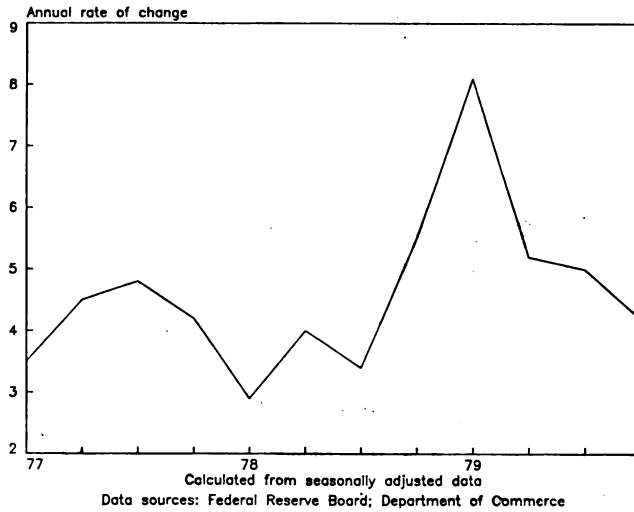
M3 = M2 plus deposits at mutual savings banks, savings and loan associations and credit unions.

- 1/ The M1 range initially announced for this period, 1.5% to 4.5%, was based on an assumption about the rate at which the public would shift balances from bank checking accounts to new interest earning transactions accounts. The FRS estimated that use of new account forms would dampen M1 growth by 3 percentage points over the year. During the year, the FRS noted that use of these accounts as alternatives to M1 deposits was more moderate than initially anticipated and accordingly adjusted the growth range for M1 upward. As of October 1979, the FRS's adjusted range for M1 was 3.0% to 6.0%.

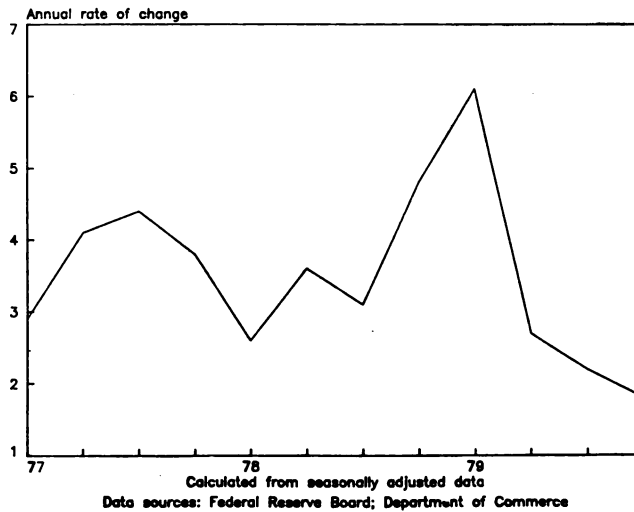
Source: Actual growth data are based on seasonally adjusted money supply series of the Board of Governors of the Federal Reserve System as revised in January 1980. Target ranges are those announced before House and Senate Banking Committees beginning in May 1975 according to procedures developed under H. Con. Res. 133 of the 94th Congress and later under P.L. 95-188. Beginning in 1979, target ranges were announced in accordance with provisions of P.L. 95-523.

CRS-7

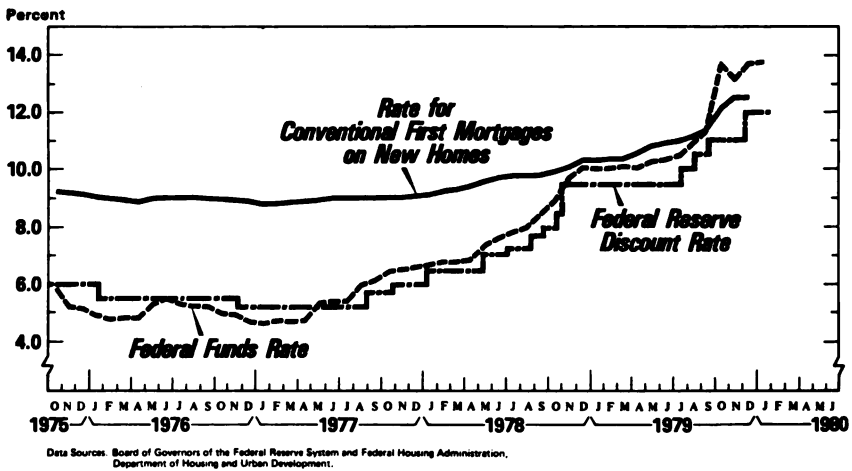
INCOME VELOCITY OF MONEY (M-1A)  
% CHANGE FROM SAME QUARTER, PREVIOUS YEAR



INCOME VELOCITY OF MONEY (M-1B)  
% CHANGE FROM SAME QUARTER, PREVIOUS YEAR





**October 1975 through January 1980**

## SELECTED INTEREST RATES, 1976-1980

	1976	1977	1978	1979	1979			1980 Jan.
					Sept.	Oct.	Nov.	
3-mo. Treasury bills (new issues)	4.99	5.26	7.22	10.04	10.18	11.47	11.87	12.04
10-yr. Treasury securities (constant maturity)	7.61	7.42	8.41	9.44	9.33	10.30	10.65	10.80
Corporate Aaa bonds (Moody's)	8.43	8.02	8.73	9.63	9.44	10.13	10.76	11.09
Prime commercial paper, 4-6 mos	5.35	5.60	7.99	10.91	11.60	13.23	13.26	NA
Prime rate charged by banks	6.84	6.82	9.06	12.67	12.90	14.39	15.55	15.25
New home mortgage yields, FHA/HUD series	9.00	9.00	9.70	10.90	11.35	12.15	12.50	NA
Federal Reserve discount rate	5.50	5.52	7.52	10.31	10.50- 11.00	11.00- 12.00	12.00	12.00
Federal funds rate	5.05	5.54	7.94	11.20	11.43	13.77	13.18	13.82

Sources: Board of Governors of the Federal Reserve System, Department of Housing and Urban Development, and Moody's Investors Service.

## FUNDS RAISED IN U.S. CREDIT MARKETS

[In billions of dollars; quarterly data are seasonally adjusted at annual rates]

	1975	1976	1977	1978	1978 (IV)	1979 (I)	1979 (II)	1979 (III)
Total funds raised, by instrument:	223.5	296.0	392.5	481.7	525.0	453.3	501.5	512.4
Investment company shares	-1	-1.0	-9	-1.0	-1.3	*	-6	-1.6
Other corporate equities	10.8	12.9	4.9	4.7	8.6	5.6	5.0	7.3
Debt instruments:	212.8	284.1	388.5	478.0	517.7	447.6	497.1	506.7
U.S. Government securities	98.2	88.1	84.3	95.2	87.5	72.6	77.9	75.4
State and local obligations	16.1	15.7	23.7	28.3	24.4	22.3	12.7	23.5
Corporate and foreign bonds	36.4	37.2	36.1	31.6	31.7	35.8	38.7	29.1
Mortgages	57.2	87.1	134.0	149.0	158.7	157.4	168.9	157.6
Consumer credit	9.7	25.6	40.6	50.6	53.3	50.7	44.7	42.4
Bank loans, n.e.c.	-12.2	7.0	29.8	58.4	75.4	34.9	65.7	99.2
Open market paper	-1.2	8.1	15.0	26.4	40.6	37.7	44.9	55.4
Other loans	8.7	15.3	25.2	38.6	46.1	36.3	43.6	24.1

Source: Board of Governors of the Federal Reserve System. 1979(III) based on incomplete data.

## 1980 ECONOMIC FORECASTS AND ADMINISTRATION GOALS

	Administration Goal Forecast	CBO Current Policy Forecast	Current Chase Forecast	Current DRI Forecast
<u>Humphrey-Hawkins</u>				
<u>Act Goals</u>				
<u>Level, fourth quarter 1980 1/</u>				
Employment (millions)	97.8	--	97.6	97.7
Unemployment rate (percent)	7.5	7.2 to 8.2	7.9	7.4
<u>Percent change, fourth quarter 1979 to fourth quarter 1980</u>				
Consumer prices	10.7	8.6 to 10.6	9.9	10.6
Real gross national product	-1.0	-2.3 to -0.3	-1.6	-1.6
Real disposable income	.5	--	-0.5	0.3
Productivity				
total economy 2/	-.3	--	--	--
private business		--	0.0	--
private nonfarm		--	-1.5	-2.0

1/ Seasonally adjusted.

2/ Based on total real GNP per hour worked.

Source: U.S. Council of Economic Advisers. Economic Report of the President. Washington, U.S. Govt. Print. Off., 1980, p. 94. U.S. Congressional Budget Office. Entering the 1980s: Fiscal Policy Choices, U.S. Govt. Print. Off., 1980, p. XIII, 56. Chase Econometrics Associates, Inc. Standard Forecast of January 22, 1980. Data Resources, Inc. Control Forecast of January 21, 1980.

## 1981 ECONOMIC FORECASTS AND ADMINISTRATION GOALS

	Administration Goal Forecast	Current CBO Policy Forecast	Current Chase Forecast	Current DRI Forecast
<u>Humphrey-Hawkins</u>				
<u>Act Goals</u>				
<u>Level, fourth quarter 1981 1/</u>				
Employment (millions)	99.7	--	99.5	99.8
Unemployment rate (percent)	7.3	7.5 to 8.5	7.6	7.3
<u>Percent change, fourth quarter 1980 to fourth quarter 1981</u>				
Consumer prices	8.7	8.3 to 10.3	9.2	9.1
Real gross national product	2.8	2.0 to 4.0	3.3	4.8
Real disposable income	1.1	--	2.4	3.7
Productivity				
total economy 2/	1.3	--	--	--
private business		--	1.4	--
private nonfarm		--	1.1	1.7

1/ Seasonally adjusted.

2/ Based on total real GNP per hour worked.

Source: See preceding table.

CRS-13

SUMMARY OF ADMINISTRATION'S ECONOMIC GOALS CONSISTENT WITH  
THE OBJECTIVES OF THE HUMPHREY-HAWKINS ACT 1/

Item	YEAR					
	Goal Forecasts		Goal Requirements			
	1980	1981	1982	1983	1984	1985
Level, fourth quarter 2/						
Employment (millions)	97.8	99.7	102.5	105.3	108.0	110.7
Unemployment (percent)	7.5	7.3	6.5	5.6	4.8	4.0
Percent change, fourth quarter to fourth quarter						
Consumer prices	10.7	8.7	7.9	7.2	6.5	5.8
Real gross national product	-1.0	2.8	5.0	5.0	4.8	4.6
Real disposable income	.5	1.1	4.7	4.7	4.6	4.4
Productivity <u>3/</u>	-.3	1.3	2.3	2.5	2.5	2.5

1/ Among the provisions of the Humphrey-Hawkins Act are those setting an unemployment goal of 4% among individuals aged 16 and over in the civilian labor force by 1983 and an inflation rate of 3% as measured by the consumer price index, also by 1983. The Act requires that beginning in the 1980 Economic Report the President review the numerical goals and timetables for reducing unemployment and inflation and report to the Congress on the degree of progress being made in these areas. From this time, if the President finds it necessary, he may recommend modification of the timetable(s) for achieving the unemployment and inflation goals.

According to the 1980 Economic Report:

...the President has used the authority provided to him in the Humphrey-Hawkins Act to extend the timetable for achieving a 4 percent unemployment rate and 3 percent inflation. The target year for achieving 4 percent unemployment is now 1985, a 2-year deferment. The target year for achieving 3 percent inflation has been postponed until 3 years beyond that. Economic goals through 1985 consistent with this timetable are shown [in the table above].

The short-term goals represent a forecast for 1980 and 1981. The medium-term goals for 1982 through 1985 are not forecasts but projections of the economic performance needed to achieve the unemployment rate and inflation goals within the Administration's timetable... (p. 94)

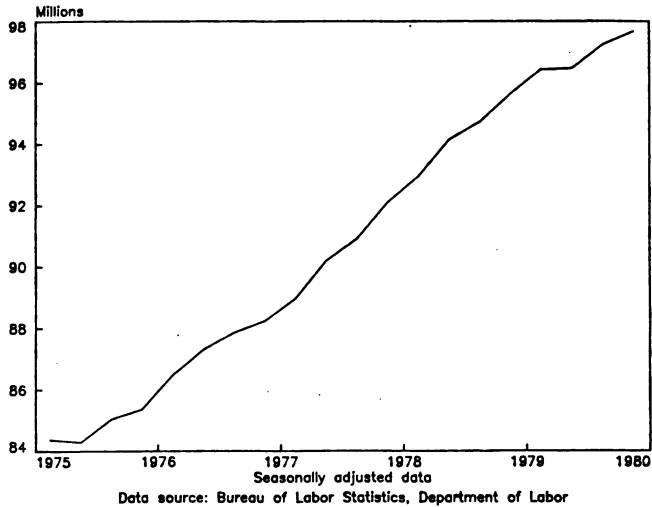
2/ Seasonally adjusted.

3/ Based on total real GNP per hour worked.

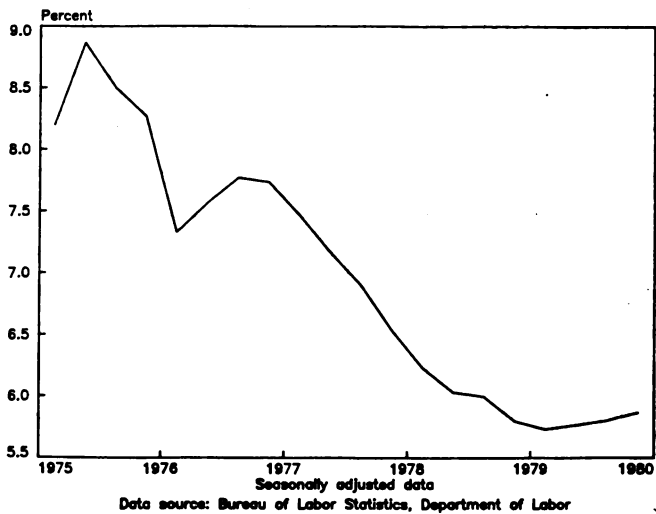
Source: U.S. Council of Economic Advisers. Economic Report of the President. Washington, U.S. Govt. Print. Off., 1980. p. 94.

CRS-14

### EMPLOYMENT TOTAL CIVILIAN EMPLOYMENT

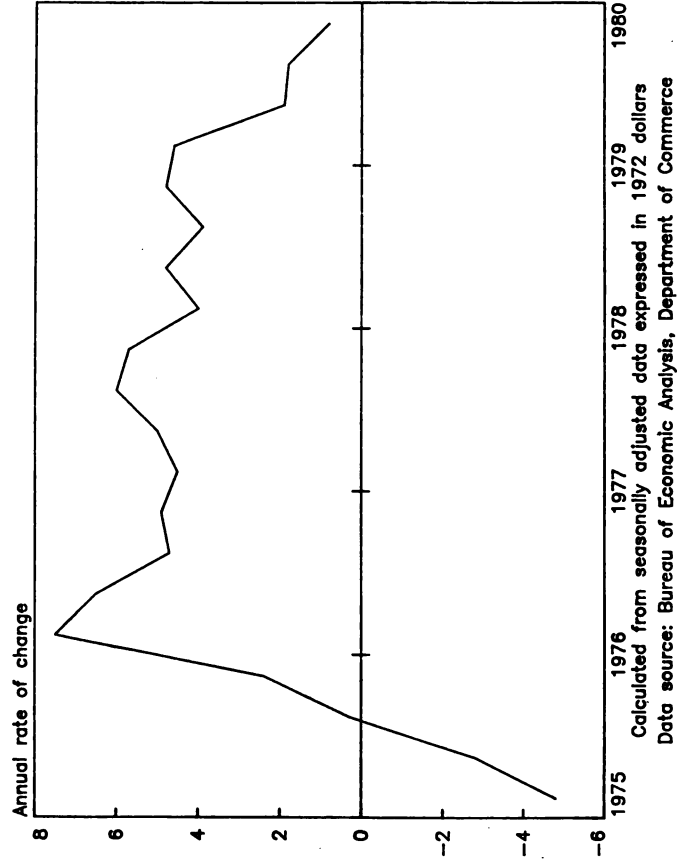


### UNEMPLOYMENT PERCENT OF CIVILIAN LABOR FORCE



CRS-15

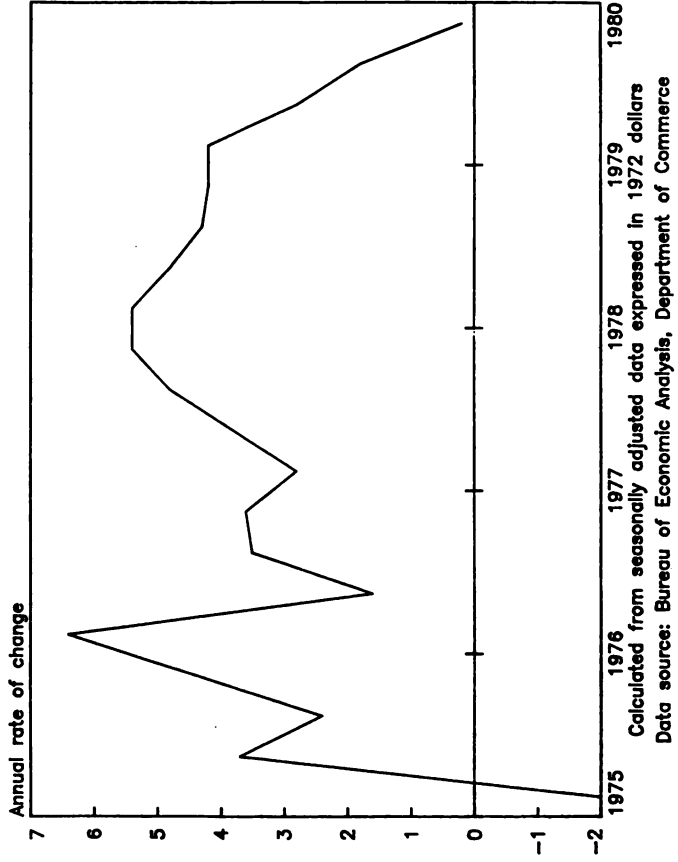
# PRODUCTION: REAL GNP % CHANGE FROM SAME QUARTER, PREVIOUS YEAR





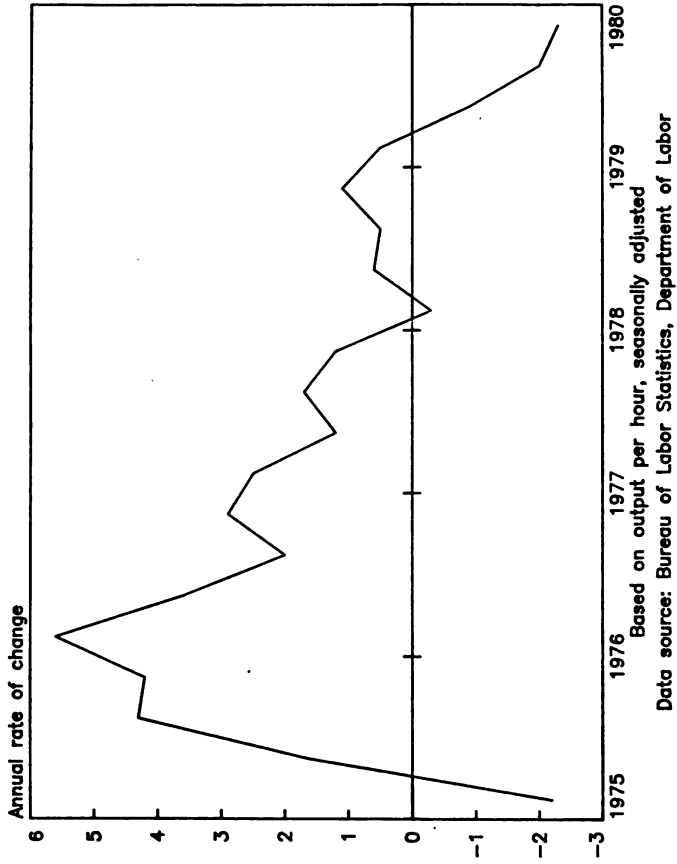
CRS-16

# REAL INCOME: DISPOSABLE PERSONAL INCOME % CHANGE FROM SAME QUARTER, PREVIOUS YEAR



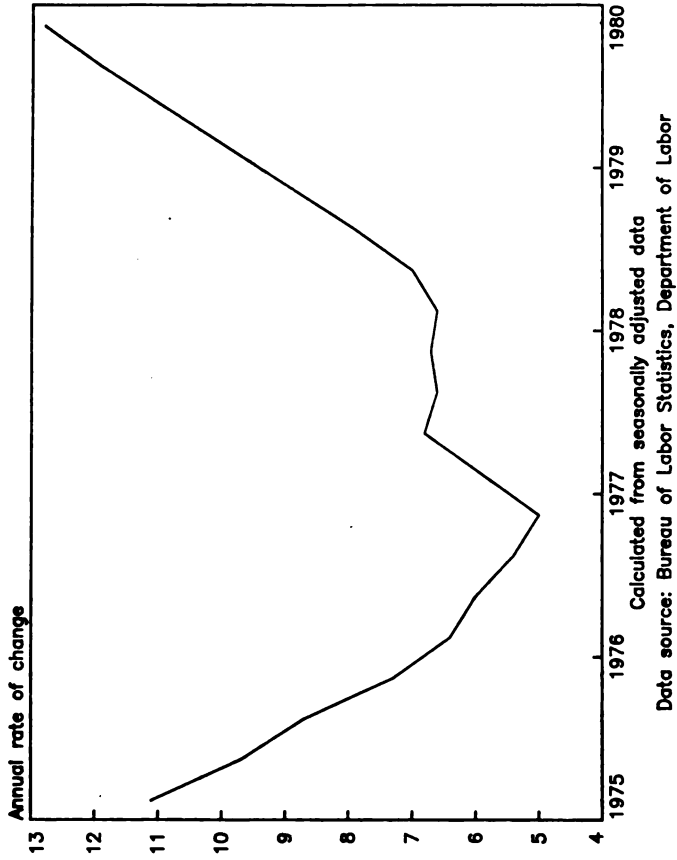
CRS-17

PRODUCTIVITY: NONFARM BUSINESS SECTOR  
% CHANGE FROM SAME QUARTER, PREVIOUS YEAR



CRS-18

PRICES: CONSUMER PRICE INDEX  
% CHANGE FROM SAME QUARTER, PREVIOUS YEAR



**EXPORTS, IMPORTS, TRADE BALANCE 1/ AND TRADE-WEIGHTED EXCHANGE  
VALUE OF THE U.S. DOLLAR 2/**

	1975	1976	1977	1978	1979 p	1979			
						I	II	III	IV p
(in billions of dollars; quarterly data seasonally adjusted)									
Exports	107.1	114.7	120.8	142.1	182.4	41.3	42.7	47.3	51.1
Imports	98.0	124.0	151.7	175.8	211.5	47.4	50.5	54.6	59.0
Trade balance	9.0	-9.4	-30.9	-33.7	-29.1	-6.1	-7.8	-7.3	-7.9

**Memorandum item:**

Petroleum imports 27.0 34.6 45.0 42.3 60.0 11.6 12.9 16.6 18.9

\*\*\*\*\*

Index of the weighted-average exchange value of the U.S. dollar 98.34 105.57 103.30 92.39 88.09 88.14 89.79 86.97 87.37

1/ Merchandise excluding military, on balance of payments basis (adjusted from Census data for differences in timing and coverage).


2/ Index of weighted average exchange value of U.S. dollar against currencies of other G-10 countries (Germany, Japan, France, United Kingdom, Canada, Italy, Netherlands, Belgium, Sweden) and Switzerland. March 1973=100. Weights are 1972-1976 global trade of each of the 10 countries.

Sources: Exports, imports, and trade balance - Department of Commerce, Bureau of Economic Analysis. Trade-weighted exchange value of the U.S. Dollar - Board of Governors of the Federal Reserve System.

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